

## **MOTION TO RECOMMIT WITH INSTRUCTIONS**

Mr. Barton of Texas moves to recommit the bill, H.R. 3221, to the committees of jurisdiction with instructions to report the same back to the House forthwith with the following amendment:

Strike all after the enacting clause and insert the following:

1 **SECTION 1. SHORT TITLE.**

2       This Act may be cited as the “American Made En-  
3 ergy and Good Jobs Act”

4                   **TITLE I—ENERGY AND**  
5                   **COMMERCE**

6           **Subtitle A—Energy Efficiency**

7 **SEC. 1000. SHORT TITLE.**

8       This subtitle may be cited as the “Energy Efficiency  
9 Improvement Act of 2007”.

10                   **PART 1—APPLIANCE EFFICIENCY**

11 **SEC. 1001. ENERGY STANDARDS FOR HOME APPLIANCES.**

12       (a) APPLIANCES.—The Energy Policy and Conserva-  
13 tion Act is amended as follows:

14                   (1) DEHUMIDIFIERS.—Section 325(cc)(2) (42  
15 U.S.C. 6295(cc)(2)) is amended to read as follows:

1       “(2) Dehumidifiers manufactured on or after October  
 2 1, 2012, shall have an Energy Factor that meets or ex-  
 3 ceeds the following values:

<b>“Product Capacity (pints/day):</b>	<b>Minimum Energy Factor (liters/ KWh)</b>
Up to 35.00 .....	1.35
35.01-45.00 .....	1.50
45.01-54.00 .....	1.60
54.01-75.00 .....	1.70
Greater than 75.00 .....	2.5”.

4           (2) RESIDENTIAL CLOTHESWASHERS AND RESI-  
 5 DENTIAL DISHWASHERS.—Section 325(g) (42  
 6 U.S.C. 6295(g)) is amended by adding at the end  
 7 the following new paragraphs:

8       “(9) A top-loading or front-loading standard-size res-  
 9 idential clotheswasher manufactured on or after January  
 10 1, 2011, shall have—

11           “(A) a Modified Energy Factor of at least 1.26;  
 12 and

13           “(B) a water factor of not more than 9.5.

14       “(10) No later than December 31, 2011, the Sec-  
 15 retary shall publish a final rule determining whether to  
 16 amend the standards in effect for clotheswashers manufac-  
 17 tured on or after January 1, 2015. Such rule shall contain  
 18 such amendment, if any.

19       “(11) Dishwashers manufactured on or after January  
 20 1, 2010, shall—

1           “(A) for standard size dishwashers not exceed  
2           355 kwh/year and 6.5 gallon per cycle; and

3           “(B) for compact size dishwashers not exceed  
4           260 kwh/year and 4.5 gallons per cycle.

5           “(12) No later than January 1, 2015, the Secretary  
6 shall publish a final rule determining whether to amend  
7 the standards for dishwashers manufactured on or after  
8 January 1, 2018. Such rule shall contain such amend-  
9 ment, if any.”.

10           (3) ENERGY CONSERVATION STANDARD.—Sec-  
11 tion 321(6)(A) (42 U.S.C. 6291(6)(A)) is amended  
12 by striking “or, in the case of” and inserting “and,  
13 in the case of residential clotheswashers, residential  
14 dishwashers,”.

15           (4) REFRIGERATORS AND FREEZERS.—Section  
16 325(b) (42 U.S.C. 6295(b)) is amended by adding  
17 at the end the following new paragraph:

18           “(4) Not later than December 31, 2010, the Sec-  
19 retary shall publish a final rule determining whether to  
20 amend the standards in effect for refrigerators, refrig-  
21 erator-freezers, and freezers manufactured on or after  
22 January 1, 2014. Such rule shall contain such amend-  
23 ment, if any.”.

24           (b) ENERGY STAR.—Section 324A(d)(2) of the En-  
25 ergy Policy and Conservation Act (42 U.S.C. 6294a(d)(2))

1 is amended by striking “January 1, 2010” and inserting  
2 “July 1, 2009”.

3 **SEC. 1002. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

4 (a) DEFINITIONS.—Section 340(13) of the Energy  
5 Policy and Conservation Act (42 U.S.C. 6311(13)) is  
6 amended—

7 (1) by redesignating subparagraphs (B)  
8 through (H) as subparagraphs (C) through (I), re-  
9 spectively; and

10 (2) by striking the text of subparagraph (A)  
11 and inserting the following: “The term ‘general pur-  
12 pose electric motor (subtype I)’ means any motor  
13 that meets the definition of ‘General Purpose’ as es-  
14 tablished in the final rule issued by the Department  
15 of Energy for ‘Energy Efficiency Program for Cer-  
16 tain Commercial and Industrial Equipment: Test  
17 Procedures, Labeling, and Certification Require-  
18 ments for Electric Motors’ (10 CFR 431), as in ef-  
19 fect on the date of enactment of the Energy Effi-  
20 ciency Improvement Act of 2007.

21 “(B) The term ‘general purpose electric motor  
22 (subtype II)’ means motors incorporating the design ele-  
23 ments of a general purpose electric motor (subtype I) that  
24 are configured as one of the following:

25 “(i) U-Frame Motors.

1 “(ii) Design C Motors.

2 “(iii) Close-coupled pump motors.

3 “(iv) Footless motors.

4 “(v) Vertical solid shaft normal thrust motor  
5 (as tested in a horizontal configuration).

6 “(vi) 8-pole motors (~900 rpm).

7 “(vii) All poly-phase motors with voltages up to  
8 600 volts other than 230/460 volts.”.

9 (b) STANDARDS.—Section 342(b)(1) of the Energy  
10 Policy and Conservation Act (42 U.S.C. 6313(b)(1)) is  
11 amended—

12 (1) by inserting “(A)” before “Except for definite”;

13 (2) by inserting “and through the end of the 36-  
14 month period beginning on the date of enactment of the  
15 Energy Efficiency Improvement Act of 2007” after “be-  
16 ginning on such date”; and

17 (3) by adding at the end the following:

18 “(B) Each general purpose electric motor (subtype  
19 I), except as provided in subparagraph (C), with a power  
20 rating of 1 horsepower or greater, but not greater than  
21 200 horsepower, manufactured (alone or as a component  
22 of another piece of equipment) after the 36-month period  
23 beginning on the date of enactment of the Energy Effi-  
24 ciency Improvement Act of 2007, shall have a nominal full

1 load efficiency not less than as defined in NEMA MG-  
2 1 (2006) Table 12-12.

3 “(C) Each fire pump motor manufactured (alone or  
4 as a component of another piece of equipment) after the  
5 36-month period beginning on the date of enactment of  
6 the Energy Efficiency Improvement Act of 2007, shall  
7 have nominal full load efficiency not less than as defined  
8 in NEMA MG-1 (2006) Table 12-11.

9 “(D) Each general purpose electric motor (subtype  
10 II) with a power rating of 1 horsepower or greater, but  
11 not greater than 200 horsepower, manufactured (alone or  
12 as a component of another piece of equipment) after the  
13 36-month period beginning on the date of enactment of  
14 the Energy Efficiency Improvement Act of 2007, shall  
15 have a nominal full load efficiency not less than as defined  
16 in NEMA MG-1 (2006) Table 12-11.

17 “(E) Each NEMA Design B, general purpose electric  
18 motor with a power rating of more than 200 horsepower,  
19 but not greater than 500 horsepower, manufactured  
20 (alone or as a component of another piece of equipment)  
21 after the 36-month period beginning on the date of enact-  
22 ment of the Energy Efficiency Improvement Act of 2007,  
23 shall have a nominal full load efficiency not less than as  
24 defined in NEMA MG-1 (2006) Table 12-11.”.

**1 SEC. 1003. RESIDENTIAL BOILERS.**

2 Section 325(f) of the Energy Policy and Conservation  
3 Act (42 U.S.C. 6925(f)) is amended—

4 (1) in the subsection heading, by inserting  
5 “AND BOILERS” after “FURNACES”;

6 (2) in paragraph (1), by striking “except that”  
7 and all that follows through “(B)” and inserting  
8 “except that”;

9 (3) by redesignating paragraph (3) as para-  
10 graph (4); and

11 (4) by inserting after paragraph (2) the fol-  
12 lowing:

13 “(3) BOILERS.—

14 “(A) IN GENERAL.—Subject to subparagraph  
15 (B), boilers manufactured on or after September 1,  
16 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water .....	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature
Gas Steam .....	80%	No Constant Burning Pilot
Oil Hot Water .....	84%	Automatic Means for Adjusting Temperature
Oil Steam .....	82%	None

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Electric Hot Water .....	None	Automatic Means for Adjusting Temperature
Electric Steam .....	None	None

1           “(B) AUTOMATIC MEANS FOR ADJUSTING  
2           WATER TEMPERATURE.—

3           “(i) IN GENERAL.—The manufacturer  
4           shall equip each gas, oil and electric hot water  
5           boiler, except boilers equipped with tankless do-  
6           mestic water heating coils, with automatic  
7           means for adjusting the temperature of the  
8           water supplied by the boiler to ensure that an  
9           incremental change in inferred heat load pro-  
10          duces a corresponding incremental change in  
11          the temperature of water supplied.

12          “(ii) SINGLE INPUT RATE.—For a boiler  
13          that fires at one input rate this requirement  
14          may be satisfied by providing an automatic  
15          means that allows the burner or heating ele-  
16          ment to fire only when such means has deter-  
17          mined that the inferred heat load cannot be met  
18          by the residual heat of the water in the system.

19          “(iii) NO INFERRED HEAT LOAD.—When  
20          there is no inferred heat load with respect to a  
21          hot water boiler, the automatic means described



1 in clause (i) and (ii) shall limit the temperature  
2 of the water in the boiler to not more than 140  
3 degrees Fahrenheit.

4 “(iv) OPERATION.—A boiler described in  
5 clause (i) or (ii) shall be operable only when the  
6 automatic means described in clauses (i), (ii)  
7 and (iii) is installed.

8 “(C) EXCEPTION.—Boilers that are manufac-  
9 tured to operate without any need for electricity, any  
10 electric connection, any electric gauges, electric  
11 pumps, electric wires, or electric devices of any sort,  
12 shall not be required to meet the requirements of  
13 this section.”.

14 **SEC. 1004. WALK-IN COOLERS AND WALK-IN FREEZERS.**

15 (a) DEFINITIONS.—Section 340 of the Energy Policy  
16 and Conservation Act (42 U.S.C. 6311) is amended—

17 (1) in paragraph (1)—

18 (A) by redesignating subparagraphs (G)  
19 through (K) as subparagraphs (H) through (L),  
20 respectively; and

21 (B) by inserting after subparagraph (F)  
22 the following:

23 “(G) Walk-in coolers and walk-in freez-  
24 ers.”;

1           (2) by redesignating paragraphs (20) and (21)  
2           as paragraphs (21) and (22), respectively; and  
3           (3) by inserting after paragraph (19) the fol-  
4           lowing:

5           “(20) The terms ‘walk-in cooler’ and ‘walk-in  
6           freezer’ mean an enclosed space refrigerated to tem-  
7           peratures, respectively, above and at or below 32 de-  
8           grees Fahrenheit that can be walked into, and has  
9           a total chilled storage area of less than 3000 square  
10          feet. These terms exclude products designed and  
11          marketed exclusively for medical, scientific, or re-  
12          search purposes.”.

13          (b) STANDARDS.—Section 342 of the Energy Policy  
14          and Conservation Act (42 U.S.C. 6313) is amended by  
15          adding at the end the following:

16          “(f) WALK-IN COOLERS AND WALK-IN FREEZERS.—  
17          (1) Each walk-in cooler or walk-in freezer manufactured  
18          on or after January 1, 2009, shall meet the following spec-  
19          ifications:

20                 “(A) Have automatic door closers that firmly  
21                 close all reach-in doors. Have automatic door closers  
22                 that firmly close all walk-in doors that have been  
23                 closed to within one inch of full closure. This re-  
24                 quirement does not apply to doors wider than 3 feet  
25                 9 inches or taller than 7 feet.

1           “(B) All walk-in freezers shall have strip doors,  
2           spring hinged doors, or other method of minimizing  
3           infiltration when doors are open.

4           “(C) Contain wall, ceiling, and door insulation  
5           of at least R-25 for coolers and R-32 for freezers.  
6           Door insulation requirements do not apply to glazed  
7           portions of doors, nor to structural members.

8           “(D) Contain floor insulation of at least R-28  
9           for freezers.

10          “(E) For evaporator fan motors of under one  
11          horsepower and less than 460 volts, use either—

12                 “(i) electronically commutated motors  
13                 (brushless direct current motors); or

14                 “(ii) three-phase motors.

15          The portion of the requirement for electronically  
16          commuted motors takes effect January 1, 2009, un-  
17          less, prior to this date, the Secretary determines  
18          that such motors are only available from one manu-  
19          facturer. The Secretary may also allow other types  
20          of motors if the Secretary determines that, on aver-  
21          age, these other motors use no more energy in evap-  
22          orator fan applications than electronically com-  
23          mutated motors. The Secretary shall establish this  
24          maximum energy consumption level no later than  
25          January 1, 2010.

1           “(F) For condenser fan motors of under one  
2           horsepower, use either—

3                   “(i) electronically commutated motors;

4                   “(ii) permanent split capacitor-type mo-  
5           tors; or

6                   “(iii) three-phase motors.

7           “(G) For all interior lights, use light sources  
8           with an efficacy of 40 lumens per watt or more, in-  
9           cluding ballast losses (if any). Light sources with an  
10          efficacy of 40 lumens per watt or less, including bal-  
11          last losses (if any), may be used in conjunction with  
12          a timer or device that turns off the lights within 15  
13          minutes of when the walk-in is not occupied.

14          “(2) Each walk-in cooler or walk-in freezer with  
15          transparent reach-in doors manufactured on or after Jan-  
16          uary 1, 2009, shall also meet the following specifications:

17                  “(A) Transparent reach-in doors and windows  
18                  in walk-in doors for walk-in freezers shall be of tri-  
19                  ple-pane glass with either heat-reflective treated  
20                  glass or gas fill.

21                  “(B) Transparent reach-in doors for walk-in  
22                  coolers and windows in walk-in doors shall be ei-  
23                  ther—

24                          “(i) double-pane glass with heat-reflective  
25                  treated glass and gas fill; or

1           “(ii) triple pane glass with either heat-re-  
2           flective treated glass or gas fill.

3           “(C) If the appliance has an antisweat heater  
4           without anti-sweat heat controls, then the appliance  
5           shall have a total door rail, glass, and frame heater  
6           power draw of no more than 7.1 watts per square  
7           foot of door opening (freezers) and 3.0 watts per  
8           square foot of door opening (coolers).

9           “(D) If the appliance has an antisweat heater  
10          with antisweat heat controls, and the total door rail,  
11          glass, and frame heater power draw is more than 7.1  
12          watts per square foot of door opening (freezers) and  
13          3.0 watts per square foot of door opening (coolers),  
14          then the antisweat heat controls shall reduce the en-  
15          ergy use of the antisweat heater in an amount cor-  
16          responding to the relative humidity in the air outside  
17          the door or to the condensation on the inner glass  
18          pane.

19          “(3) Not later than January 1, 2012, the Sec-  
20          retary shall publish performance-based standards for  
21          walk-in coolers and walk-in freezers that achieve the  
22          maximum improvement in energy which the Sec-  
23          retary determines is technologically feasible and eco-  
24          nomically justified. Such standards shall apply to  
25          products manufactured three years after the final

1 rule is published unless the Secretary determines, by  
2 rule, that three years is inadequate, in which case  
3 the Secretary may set an effective date for products  
4 manufactured no greater than five years after the  
5 date of publication of a final rule for these products.

6 “(4) Not later than January 1, 2020, the Sec-  
7 retary shall publish a final rule to determine if the  
8 standards established under paragraph (3) should be  
9 amended. The rule shall provide that such standards  
10 shall apply to products manufactured three years  
11 after the final rule is published unless the Secretary  
12 determines, by rule, that three years is inadequate,  
13 in which case the Secretary may set an effective date  
14 for products manufactured no greater than five  
15 years after the date of publication of a final rule for  
16 these products.”.

17 (c) TEST PROCEDURES.—Section 343(a) of the En-  
18 ergy Policy and Conservation Act (42 U.S.C. 6314(a)) is  
19 amended by adding at the end the following:

20 “(9) For walk-in coolers and walk-in freezers:

21 “(A) R value is defined as  $1/K$  factor multiplied  
22 by the thickness of the panel. K factor shall be  
23 based on ASTM test procedure C518-2004. For cal-  
24 culating R value for freezers, the K factor of the  
25 foam at 20F (average foam temperature) shall be

1       used. For calculating R value for coolers the K fac-  
2       tor of the foam at 55F (average foam temperature)  
3       shall be used.

4           “(B) Not later than January 1, 2010, the Sec-  
5       retary shall establish a test procedure to measure  
6       the energy-use of walk-in coolers and walk-in freez-  
7       ers. Such test procedure may be based on computer  
8       modeling, if the computer model or models have  
9       been verified using the results of laboratory tests on  
10      a significant sample of walk-in coolers and walk-in  
11      freezers.”.

12      (d) LABELING.—Section 344(e) of the Energy Policy  
13      and Conservation Act (42 U.S.C. 6315(e)) is amended by  
14      inserting “walk-in coolers and walk-in freezers,” after  
15      “commercial clothes washers,” each place it appears.

16      (e) ADMINISTRATION, PENALTIES, ENFORCEMENT,  
17      AND PREEMPTION.—Section 345 of the Energy Policy and  
18      Conservation Act (42 U.S.C. 6316), is amended—

19           (1) by striking “subparagraphs (B), (C), (D),  
20           (E), and (F)” and inserting “subparagraphs (B),  
21           (C), (D), (E), (F), and (G)” each place it appears.

22           (2) adding at the end the following:

23           “(h)(1)(A)(i) Except as provided in clause (ii) and  
24      paragraphs (2) and (3), section 327 shall apply to walk-  
25      in coolers and walk-in freezers for which standards have

1 been established under paragraphs (1) and (2) of section  
2 342(f) to the same extent and in the same manner as the  
3 section applies under part A on the date of enactment of  
4 this subsection.

5 “(ii) Any State standard issued before the date of en-  
6 actment of this subsection shall not be preempted until  
7 the standards established under paragraphs (1) and (2)  
8 of section 342(f) take effect.

9 “(B) In applying section 327 to the equipment under  
10 subparagraph (A), paragraphs (1), (2), and (3) of sub-  
11 section (a) shall apply.

12 “(2)(A) If the Secretary does not issue a final rule  
13 for a specific type of walk-in coolers and walk-in freezers  
14 within the time frame specified in 342(f)(3) or (4), sub-  
15 sections (b) and (c) of section 327 shall no longer apply  
16 to the specific type of walk-in coolers and walk-in freezers  
17 for the period beginning on the day after the scheduled  
18 date for a final rule and ending on the date on which the  
19 Secretary publishes a final rule covering the specific type  
20 of walk-in coolers and walk-in freezers.

21 “(B) Any State standard issued before the publica-  
22 tion of the final rule shall not be preempted until the  
23 standards established in the final rule take effect.

24 “(3) Any standard issued in the State of California,  
25 before January 1, 2011, under Title 20 of the California



1 Code of Regulations, which refers to walk-in coolers and  
2 walk-in freezers, for which standards have been estab-  
3 lished under paragraphs (1) and (2) of section 342(f),  
4 shall not be preempted until the standards established  
5 under paragraph (3) of section 342(f) take effect.”.

6 **SEC. 1005. STUDY ON CREATING A REGIONAL STANDARDS**  
7 **PROGRAM FOR HEATING AND COOLING**  
8 **PRODUCTS.**

9 (a) **STUDY REQUIRED.**—The Secretary of Energy  
10 shall convene a study group including a representative  
11 from the Office of Management and Budget; a representa-  
12 tive from the National Institute of Standards and Tech-  
13 nology; representatives of nongovernmental advocacy orga-  
14 nizations; representatives of product manufacturers, dis-  
15 tributors, and installers; representatives of the gas and  
16 electric utility industries; and such other individuals as the  
17 Secretary may designate. The group shall evaluate the po-  
18 tential benefits and consequences of allowing the Secretary  
19 to prescribe regional standards for heating and cooling  
20 products.

21 (b) **REPORT REQUIRED.**—Not later than 12 months  
22 after the date of enactment of this Act, the Secretary shall  
23 submit a report regarding the findings of the study group  
24 to the Committee on Energy and Commerce in the House

1 of Representatives and the Committee on Energy and  
2 Natural Resources of the Senate.

3 **SEC. 1006. PROCEDURE FOR PRESCRIBING NEW OR AMEND-**  
4 **ED STANDARDS.**

5 Section 325(p) of the Energy Policy and Conserva-  
6 tion Act (42 U.S.C. 6925(p)) is amended—

7 (1) by striking paragraph (1); and

8 (2) by redesignating paragraphs (2) through  
9 (4) as paragraphs (1) through (3), respectively.

10 **SEC. 1007. EXPEDITING APPLIANCE STANDARDS**  
11 **RULEMAKINGS.**

12 (a) **DIRECT FINAL RULE.**—Section 325(p) of the En-  
13 ergy Policy and Conservation Act (42 U.S.C. 6295(p)) is  
14 amended by adding a new paragraph (5) as follows:

15 “(5) If manufacturers of any type (or class) of  
16 covered products or covered equipment, States, and  
17 efficiency advocates, or persons determined by the  
18 Secretary to fully represent such parties, submit to  
19 the Secretary a joint recommendation of an energy  
20 or water conservation standard and the Secretary  
21 determines that the recommended standard complies  
22 with subsection (o) or section 342(a)(6)(B), as appli-  
23 cable, to that type (or class) of covered products or  
24 covered equipment to which the standard would  
25 apply, the Secretary may then issue a direct final

1 rule including the standard recommended. If the  
2 Secretary determines that a direct final rule cannot  
3 be issued based on such a submitted joint rec-  
4 ommendation, the Secretary shall publish a deter-  
5 mination with an explanation as to why the joint  
6 recommendation does not comply with this para-  
7 graph. For purposes of this paragraph, the term ‘di-  
8 rect final rule’ means a final rule published the same  
9 day with a parallel notice of proposed rulemaking  
10 that proposes a new or amended energy or water  
11 conservation standard that is identical to the stand-  
12 ard set forth in the final rule. There shall be a 110-  
13 day period for public comment with respect to the  
14 direct final rule. Not later than 10 days after the ex-  
15 piration of such 110-day period, the Secretary shall  
16 publish a notice responding to comments received  
17 with respect to the direct final rule. The Secretary  
18 shall withdraw a direct final rule promulgated pur-  
19 suant to this paragraph within 120 days after publi-  
20 cation in the Federal Register if the Secretary re-  
21 ceives, with respect to the direct final rule, one or  
22 more adverse public comments or any alternate joint  
23 recommendation and, based on the rulemaking  
24 record, the Secretary determines that such adverse  
25 comments or alternate joint recommendation may

1 provide a reasonable basis for withdrawing the direct  
2 final rule under subsection (o), section 342(a)(6)(B),  
3 or any applicable law. In such a case, the Secretary  
4 shall then proceed with the parallel notice of pro-  
5 posed rulemaking, and shall identify in a notice pub-  
6 lished in the Federal Register the reasons for the  
7 withdrawal of the direct final rule. A direct final rule  
8 that is withdrawn in accordance with this paragraph  
9 shall not be considered final for purposes of sub-  
10 section (o)(1) of this section. No person shall be  
11 found in violation of this part for noncompliance  
12 with a direct final rule that is withdrawn under this  
13 paragraph, if that person has complied with the ap-  
14 plicable standard in effect under this part imme-  
15 diately prior to issuance of that direct final rule.”.

16 (b) CONFORMING AMENDMENT.— Section 345(b)(1)  
17 of the Energy Policy and Conservation Act (42 U.S.C.  
18 6316(b)(1)) is amended by inserting after “section” the  
19 first time it appears “325(p)(5), section”.

20 **SEC. 1008. CORRECTION OF LARGE AIR CONDITIONER**  
21 **RULE ISSUANCE CONSTRAINT.**

22 (a) DEFINITIONS.—Section 340 of the Energy Policy  
23 and Conservation Act (42 U.S.C. 6311) is amended by  
24 adding the following new paragraphs at the end:

1           “(22) The term ‘single package vertical air con-  
2           ditioner’ means air-cooled commercial package air  
3           conditioning and heating equipment; factory assem-  
4           bled as a single package having its major compo-  
5           nents arranged vertically, which is an encased com-  
6           bination of cooling and optional heating components,  
7           is intended for exterior mounting on, adjacent inte-  
8           rior to, or through an outside wall; and is powered  
9           by a single- or three-phase current. It may contain  
10          separate indoor grille(s), outdoor louvers, various  
11          ventilation options, indoor free air discharge, duct-  
12          work, well plenum, or sleeve. Heating components  
13          may include electrical resistance, steam, hot water,  
14          or gas, but may not include reverse cycle refrigera-  
15          tion as a heating means.

16          “(23) The term ‘single package vertical heat  
17          pump’ means a single package vertical air condi-  
18          tioner that utilizes reverse cycle refrigeration as its  
19          primary heat source, that may include secondary  
20          supplemental heating by means of electrical resist-  
21          ance, steam, hot water, or gas.”.

22          (b) STANDARDS.—Section 342(a) of the Energy Pol-  
23          icy and Conservation Act (42 U.S.C. 6313(a)) is amend-  
24          ed—

1           (1) in each of paragraphs (1) and (2), by in-  
2           serting after “heating equipment” in the first sen-  
3           tence “, including single package vertical air condi-  
4           tioners and single package vertical heat pumps,”;

5           (2) in paragraph (1), by striking “but before  
6           January 1, 2010,”;

7           (3) in paragraph (6)(A)(i), by striking “Janu-  
8           ary 1, 2010,” and inserting “October 24, 1992,”;

9           (4) in each of paragraphs (7), (8), and (9), by  
10          inserting after “heating equipment” in the first sen-  
11          tence “, excluding single package vertical air condi-  
12          tioners and single package vertical heat pumps,”;

13          (5) in paragraph (7)—

14                (A) by striking “manufactured on or after  
15                January 1, 2010”;

16                (B) in each of subparagraphs (A), (B), and  
17                (C) , by adding at the beginning “For equip-  
18                ment manufactured on or after January 1,  
19                2010,”; and

20                (C) by adding at the end the following new  
21                subparagraphs:

22                “(D) For equipment manufactured on or after  
23                the later of January 1, 2008, or the date six months  
24                after enactment of this section, the minimum sea-  
25                sonal energy efficiency ratio of air-cooled three-phase

1 electric central air conditioners and central air con-  
2 ditioning heat pumps less than 65,000 Btu per hour  
3 (cooling capacity), split systems, shall be 13.0.

4 “(E) For equipment manufactured on or after  
5 the later of January 1, 2008, or the date six months  
6 after enactment of this section, minimum seasonal  
7 energy efficiency ratio of air-cooled three-phase elec-  
8 tric central air conditioners and central air condi-  
9 tioning heat pumps less than 65,000 Btu per hour  
10 (cooling capacity), single package, shall be 13.0.

11 “(F) For equipment manufactured on or after  
12 the later of January 1, 2008, or the date six months  
13 after enactment of this section, minimum heating  
14 seasonal performance factor of air-cooled three-  
15 phase electric central air conditioning heat pumps  
16 less than 65,000 Btu per hour (cooling capacity),  
17 split systems, shall be 7.7.

18 “(G) For equipment manufactured on or after  
19 the later of January 1, 2008, or the date six months  
20 after enactment of this section, the minimum heat-  
21 ing seasonal performance factor of air-cooled three-  
22 phase electric central air conditioning heat pumps  
23 less than 65,000 Btu per hour (cooling capacity),  
24 single package, shall be 7.7.”; and

1 (6) by adding the following new paragraphs at  
2 the end:

3 “(10) Single package vertical air conditioners and  
4 single package vertical heat pumps manufactured on or  
5 after January 1, 2010, shall meet the following standards:

6 “(A) The minimum energy efficiency ratio of  
7 single package vertical air conditioners less than  
8 65,000 Btu per hour (cooling capacity), single-  
9 phase, shall be 9.0.

10 “(B) The minimum energy efficiency ratio of  
11 single package vertical air conditioners less than  
12 65,000 Btu per hour (cooling capacity), three-phase,  
13 shall be 9.0.

14 “(C) The minimum energy efficiency ratio of  
15 single package vertical air conditioners at or above  
16 65,000 Btu per hour (cooling capacity) but less than  
17 135,000 Btu per hour (cooling capacity), shall be  
18 8.9.

19 “(D) The minimum energy efficiency ratio of  
20 single package vertical air conditioners at or above  
21 135,000 Btu per hour (cooling capacity) but less  
22 than 240,000 Btu per hour (cooling capacity), shall  
23 be 8.6.

24 “(E) The minimum energy efficiency ratio of  
25 single package vertical heat pumps less than 65,000



1 Btu per hour (cooling capacity), single-phase, shall  
2 be 9.0; and the minimum coefficient of performance  
3 in the heating mode shall be 3.0.

4 “(F) The minimum energy efficiency ratio of  
5 single package vertical heat pumps less than 65,000  
6 Btu per hour (cooling capacity), three-phase, shall  
7 be 9.0; and the minimum coefficient of performance  
8 in the heating mode shall be 3.0.

9 “(G) The minimum energy efficiency ratio of  
10 single package vertical heat pumps at or above  
11 65,000 Btu per hour (cooling capacity) but less than  
12 135,000 Btu per hour (cooling capacity), shall be  
13 8.9; and the minimum coefficient of performance in  
14 the heating mode shall be 3.0.

15 “(H) The minimum energy efficiency ratio of  
16 single package vertical heat pumps at or above  
17 135,000 Btu per hour (cooling capacity) but less  
18 than 240,000 Btu per hour (cooling capacity), shall  
19 be 8.6; and the minimum coefficient of performance  
20 in the heating mode shall be 2.9.

21 “(11) Not later than 36 months after the date of en-  
22 actment of this paragraph, the Secretary shall review the  
23 most recently published ASHRAE/IES Standard 90.1  
24 with respect to single package vertical air conditioners and

1 single package vertical heat pumps according to the proce-  
2 dures established in paragraph (6).”.

3 **SEC. 1009. IMPROVING SCHEDULE FOR STANDARDS UPDAT-**  
4 **ING AND CLARIFYING STATE AUTHORITY.**

5 (a) CONSUMER APPLIANCES.—Section 325(m) of the  
6 Energy Policy and Conservation Act (42 U.S.C. 6295(m))  
7 is amended to read as follows:

8 “(m) FURTHER RULEMAKING.—(1) Not later than 6  
9 years after issuance of any final rule establishing or  
10 amending a standard, as required for a product under this  
11 part, the Secretary shall publish either—

12 “(A) a notice of the Secretary’s determination  
13 that standards for that product do not need to be  
14 amended, based on the criteria in subsection (n)(2);  
15 or

16 “(B) a notice of proposed rulemaking including  
17 new proposed standards based on the criteria in sub-  
18 section (o) and the procedures in subsection (p).

19 In either case, the Secretary shall also publish a notice  
20 stating that the Department’s analysis is publicly avail-  
21 able, and provide opportunity for written comment.

22 “(2) Not later than 2 years after a notice is issued  
23 under paragraph (1)(B), the Secretary shall publish a  
24 final rule amending the standard for the product. Not  
25 later than 3 years after a determination under paragraph

1 (1)(A), the Secretary shall make a new determination and  
2 publication under paragraph (1)(A) or (B).

3 “(3) An amendment prescribed under this subsection  
4 shall apply to products manufactured after a date which  
5 is 3 years after publication of the final rule establishing  
6 a standard, except that a manufacturer shall not be re-  
7 quired to apply new standards to a product with respect  
8 to which other new standards have been required within  
9 the prior 6 years.

10 “(4) The Secretary shall promptly submit to the  
11 Committee on Energy and Commerce of the House of  
12 Representatives and the Committee on Energy and Nat-  
13 ural Resources of the Senate—

14 “(A) a progress report every 180 days on com-  
15 pliance with this section, including a specific plan to  
16 remedy any failures to comply with deadlines for ac-  
17 tion set forth in this section; and

18 “(B) all required reports to the Court or to any  
19 party to the Consent Decree in State of New York  
20 v Bodman, Consolidated Civil Actions No.05 Civ.  
21 7807 and No.05 Civ. 7808.”.

22 (b) INDUSTRIAL EQUIPMENT.—Section 342(a)(6) of  
23 the Energy Policy and Conservation Act (42 U.S.C.  
24 6313(a)(6)) is amended—

1           (1) by redesignating subparagraph (C) as sub-  
2       paragraph (D); and

3           (2) by amending the remainder of the para-  
4       graph to read as follows:

5           “(6)(A) If ASHRAE/IES Standard 90.1 is  
6       amended with respect to any small, large, or very  
7       large commercial package air conditioning and heat-  
8       ing equipment, packaged terminal air conditioners,  
9       packaged terminal heat pumps, warm-air furnaces,  
10      packaged boilers, storage water heaters, instant-  
11      aneous water heaters, or unfired hot water storage  
12      tanks, the Secretary shall within 6 months publish  
13      in the Federal Register for public comment an anal-  
14      ysis of the energy savings potential of the amended  
15      energy efficiency standards. The Secretary shall es-  
16      tablish an amended uniform national standard for  
17      that product at the minimum level for each effective  
18      date specified in the amended ASHRAE/IES Stand-  
19      ard 90.1 within 18 months of the ASHRAE amend-  
20      ment’s publication, unless the Secretary determines,  
21      by rule published in the Federal Register, and sup-  
22      ported by clear and convincing evidence, that adop-  
23      tion of a uniform national standard more stringent  
24      than such amended ASHRAE/IES Standard 90.1  
25      for such product would result in significant addi-

1 tional conservation of energy and is technologically  
2 feasible and economically justified.

3 “(B) If the Secretary issues a rule containing  
4 such a determination, the rule shall establish such  
5 amended standard, and shall be issued within 30  
6 months of the ASHRAE amendment’s publication.

7 “(C)(i) Not later than 6 years after issuance of  
8 any final rule establishing or amending a standard,  
9 as required for a product under this part, the Sec-  
10 retary shall publish either—

11 “(I) a notice of the Secretary’s determina-  
12 tion that standards for that product do not  
13 need to be amended, based on the criteria in  
14 subparagraph (A); or

15 “(II) a notice of proposed rulemaking in-  
16 cluding new proposed standards based on the  
17 criteria and procedures in subparagraph (B).

18 In either case, the Secretary shall also publish a no-  
19 tice stating that the Department’s analysis is pub-  
20 licly available, and provide opportunity for written  
21 comment.

22 “(ii) Not later than 2 years after a notice is  
23 issued under clause (i)(II), the Secretary shall pub-  
24 lish a final rule amending the standard for the prod-  
25 uct. Not later than 3 years after a determination

1 under clause (i)(I), the Secretary shall make a new  
2 determination and publication under clause (i)(I) or  
3 (II).

4 “(iii) An amendment prescribed under this sub-  
5 paragraph shall apply to products manufactured  
6 after a date which is 3 years after publication of the  
7 final rule establishing a standard, except that a  
8 manufacturer shall not be required to apply new  
9 standards to a product with respect to which other  
10 new standards have been required within the prior  
11 6 years.

12 “(iv) The Secretary shall promptly submit to  
13 the House Committee on Energy and Commerce and  
14 to the Senate Committee on Energy and Natural  
15 Resources a progress report every 180 days on com-  
16 pliance with this paragraph, including a specific plan  
17 to remedy any failures to comply with deadlines for  
18 action set forth in this paragraph.”.

19 **SEC. 1010. UPDATING APPLIANCE TEST PROCEDURES.**

20 (a) CONSUMER APPLIANCES.—Section 323(b)(1)(A)  
21 of the Energy Policy and Conservation Act (42 U.S.C.  
22 6923(b)(1)(A)) is amended by striking “The Secretary  
23 may” and all that follows through “paragraph (3)” and  
24 inserting “At least every 7 years the Secretary shall review  
25 test procedures for all covered products and shall—

1           “(i) amend test procedures with respect to any  
2 covered product if the Secretary determines that  
3 amended test procedures would more accurately or  
4 fully comply with the requirements of paragraph (3);  
5 or

6           “(ii) publish notice in the Federal Register of  
7 any determination not to amend a test procedure”.

8       (b) INDUSTRIAL EQUIPMENT.—Section 343(a)(1) of  
9 the Energy Policy and Conservation Act (42 U.S.C.  
10 6314(a)(1)) is amended by striking “The Secretary may”  
11 and all that follows through “this section” and inserting  
12 “At least every 7 years the Secretary shall conduct an  
13 evaluation of each class of covered equipment and—

14           “(B) if the Secretary determines that amended  
15 test procedures would more accurately or fully com-  
16 ply with the requirements of paragraphs (2) and (3),  
17 shall prescribe test procedures for such class in ac-  
18 cordance with the provisions of this section; or

19           “(C) shall publish notice in the Federal Reg-  
20 ister of any determination not to amend a test pro-  
21 cedure”.

22 **SEC. 1011. TECHNICAL CORRECTIONS.**

23       (a) Section 135(a)(1)(A)(ii) of the Energy Policy Act  
24 of 2005 (Public Law 109–58) is amended by striking

1 “C78.1–1978(R1984)” and inserting “C78.3–  
2 1978(R1984)”.

3 (b) Section 325 of the Energy Policy and Conserva-  
4 tion Act (42 U.S.C. 6295) (as amended by section  
5 135(c)(4) of the Energy Policy Act of 2005) is amended—

6 (1) in subsection (v)—

7 (A) in the subsection heading, by striking  
8 “CEILING FANS AND”;

9 (B) by striking paragraph (1); and

10 (C) by redesignating paragraphs (2)  
11 through (4) as paragraphs (1) through (3), re-  
12 spectively; and

13 (2) in subsection (ff)—

14 (A) in paragraph (1)(A)—

15 (i) by striking clause (iii);

16 (ii) by redesignating clause (iv) as  
17 clause (iii); and

18 (iii) in clause (iii)(II) (as so redesign-  
19 nated), by inserting “fans sold for” before  
20 “outdoor”; and

21 (B) in paragraph (4)(C)—

22 (i) in the matter preceding clause (i),  
23 by striking “subparagraph (B)” and in-  
24 serting “subparagraph (A)”;



1 (ii) by striking clause (ii) and insert-  
2 ing the following:

3 “(ii) shall be packaged with lamps to fill all  
4 sockets.”;

5 (C) in paragraph (6), by redesignating  
6 subparagraphs (C) and (D) as clauses (i) and  
7 (ii), respectively, of subparagraph (B); and

8 (D) in paragraph (7), by striking “327”  
9 the second place it appears and inserting  
10 “324”.

11 **PART 2—LIGHTING EFFICIENCY**

12 **SEC. 1021. ENERGY EFFICIENCY STANDARDS FOR GENERAL**  
13 **SERVICE INCANDESCENT LAMPS.**

14 (a) AMENDMENTS.—Section 321(30) of the Energy  
15 Policy and Conservation Act (42 U.S.C. 6291(30)), is  
16 amended as follows:

17 (1) Delete subsection 30(D) in its entirety, and  
18 insert in its place:

19 “(D) The term ‘general service incandes-  
20 cent lamp’ means a standard incandescent or  
21 halogen type lamp that: is intended for general  
22 service applications; has a medium screw base;  
23 has a wattage rating no less than 25 watts and  
24 no greater than 150 watts; has a voltage range  
25 at least partially within 110 and 130 volts; has

1           an A-15, A-19, A-21, A-23, A-25, PS-25, PS-  
2           30, BT-14.5, BT-15, CP-19, TB-19, CA-22, or  
3           equivalent shape as defined in ANSI C78.20-  
4           2003; and has a bulb finish of the frosted,  
5           clear, soft white, or modified (enhanced) spec-  
6           trum type. The following incandescent lamps  
7           are not general service incandescent lamps:

- 8                   “(i) appliance,
- 9                   “(ii) black light,
- 10                  “(iii) bug,
- 11                  “(iv) colored,
- 12                  “(v) infrared,
- 13                  “(vi) left-hand thread,
- 14                  “(vii) marine,
- 15                  “(viii) marine signal service,
- 16                  “(ix) mine service,
- 17                  “(x) plant light,
- 18                  “(xi) reflector,
- 19                  “(xii) rough service,
- 20                  “(xiii) shatter resistant,
- 21                  “(xiv) sign service,
- 22                  “(xv) silver bowl,
- 23                  “(xvi) showcase,
- 24                  “(xvii) three-way,
- 25                  “(xviii) traffic signal, and

1 “(xix) vibration service or vibration  
2 resistant.”.

3 (2) Insert after paragraph 30(S) (42 U.S.C.  
4 6291(30)(S)) the following new subparagraph:

5 “(T) The terms ‘modified spectrum’ or ‘en-  
6 hanced spectrum’ lamp, as related to incandes-  
7 cent lamps, means an incandescent lamp that is  
8 not a colored incandescent lamp, and when op-  
9 erated at its rated voltage and wattage:

10 “(i) has a color point with (x,y) chro-  
11 maticity coordinates on the Commission  
12 Internationale de l’Eclairage (C.I.E.) 1931  
13 chromaticity diagram that lies below the  
14 black-body locus; and

15 “(ii) has a color point with (x,y) chro-  
16 maticity coordinates on the C.I.E. 1931  
17 chromaticity diagram that lies at least 4  
18 MacAdam steps distant from the color  
19 point of a clear lamp with the same fila-  
20 ment and bulb shape, operated at the same  
21 rated voltage and wattage. The MacAdam  
22 steps are defined as referenced in IESNA  
23 LM16.

24 “(U) The terms ‘vibration service lamp’ or  
25 ‘vibration resistant lamp’ means a lamp with

1 filament configurations similar to but not lim-  
2 ited to C-5, C-7A, or C-9, as listed in Figure  
3 6-12 of the 9th Edition of the IESNA Lighting  
4 Handbook. The lamp is designated and mar-  
5 keted specifically for vibration service or vibra-  
6 tion resistant applications, has a maximum  
7 wattage of 60 watts, and is sold at retail in  
8 packages of 4 lamps or less. The designation  
9 shall be on the lamp packaging, and marketing  
10 materials shall identify the lamp as being vibra-  
11 tion resistant or vibration service.

12 “(V) The term ‘rough service lamp’ means  
13 a lamp that has a minimum of 5 supports with  
14 filament configurations similar to but not lim-  
15 ited to C7A, C11, C17, and C22 as listed in  
16 Figure 6-12 of the 9th edition of the IESNA  
17 Lighting handbook, where lead wires are not  
18 counted as supports. The lamp is designated  
19 and marketed specifically for ‘rough service’ ap-  
20 plications. The designation shall appear on the  
21 lamp packaging, and marketing materials shall  
22 identify the lamp as being for rough service.

23 “(W) The term ‘three-way lamp’ means an  
24 incandescent lamp that employs two filaments,  
25 operated separately and in combination, to pro-

1           vide three light levels. The designation shall be  
2           on the lamp packaging, and marketing mate-  
3           rials shall identify the lamp as being a three-  
4           way lamp.

5           “(X) The term ‘appliance lamp’ means any  
6           lamp specifically designed to operate in a house-  
7           hold appliance with a maximum wattage of 40  
8           watts and sold at retail. Examples of appliance  
9           lamps include oven lamps, refrigerator lamps,  
10          and vacuum cleaner lamps. Appliance lamps  
11          sold at retail shall be designated and marketed  
12          for the intended application. The designation  
13          shall be on the lamp packaging, and marketing  
14          materials shall identify the lamp as being an  
15          appliance lamp.

16          “(Y) The term ‘shatter-resistant lamp’,  
17          ‘shatter-proof lamp’, or ‘shatter-protected’  
18          means a lamp with a coating or equivalent tech-  
19          nology compliant with NSF/ANSI 51, designed  
20          to contain glass in the event the glass envelop  
21          of the lamp is broken and provides effective  
22          containment over the life of the lamp. The lamp  
23          is designed and marketed specifically for appli-  
24          cations where it is necessary to contain glass in  
25          the event the glass envelop of the lamp is bro-

1           ken. The designation shall be on the lamp pack-  
2           aging, and marketing material shall identify the  
3           lamp as being shatter-resistant, shatter-proof or  
4           shatter-protected.”.

5           (3) Section 322(a)(14) of the Energy Policy  
6           and Conservation Act (42 U.S.C. 6292(a)(14), is  
7           amended by inserting after “general service fluores-  
8           cent lamps’” the following: “general service incan-  
9           descent lamps,”.

10          (4) Section 325(i) of the Energy Policy and  
11          Conservation Act (42 U.S.C. 6295(i)), is amended  
12          as follows:

13                (A) Insert in the heading of subsection (i)  
14                after “GENERAL SERVICE FLUORESCENT  
15                LAMPS” the following: “GENERAL SERVICE IN-  
16                CANDESCENT LAMPS,”.

17                (B) Insert in subsection (i), paragraph  
18                (1)(A) (42 U.S.C. 6295(i)(1)(A)) after “general  
19                service fluorescent lamps” the following: “gen-  
20                eral service incandescent lamps,”.

21                (C) Insert in subsection (i), paragraph  
22                (1)(A) (42 U.S.C. 6295(i)(1)(A)) after “lamp  
23                efficacy” the following: “new maximum watt-  
24                age,”.

1 (D) Insert in subsection (i), paragraph  
2 (1)(A) (42 U.S.C. 6295(i)(1)(A)) after the table  
3 titled “incandescent reflector lamp” the fol-  
4 lowing table titled “general service incandescent  
5 lamps”:

“Clear, Inside Frost, and Soft White General Service Incandescent Lamps

Common Wattage	Lumen Range	New Maximum Wattage	Effective Date
100 .....	1490-2600	72	July 1, 2012
75 .....	1010-1489	53	January 1, 2014
60 .....	730-1009	43	January 1, 2015
40 .....	310-729	29	January 1, 2018

“Modified Spectrum General Service Incandescent Lamps

Common Wattage	Lumen Range	New Maximum Wattage	Effective Date
100 .....	1118-1950	72	July 1, 2012
75 .....	758-1117	53	January 1, 2014
60 .....	548-757	43	January 1, 2015
40 .....	232-547	29	January 1, 2018



1            “All lamps intended for general service  
2            (general illumination) applications (whether in-  
3            candescent or not), with a medium screw base,  
4            and with a voltage range at least partially with-  
5            in 110 and 130 volts, and with no external bulb  
6            or with a bulb of the frosted, clear, soft white,  
7            or modified spectrum types, and manufactured  
8            or imported after June 30, 2012 shall have a  
9            minimum rated life of 1000 hours and must  
10           have a color rendering index (CRI) greater than  
11           or equal to 80 for frosted, clear, and soft white  
12           lamps, or greater than or equal to 75 for modi-  
13           fied spectrum lamps.”.

14           (F) Amend paragraph (1)(B) (42 U.S.C.  
15           6295(i)(1)(B)) to read as follows: “Unless a  
16           date is specified in the tables set forth in sub-  
17           paragraph (A), the term ‘effective date’ means  
18           the last day of the month set forth in the table  
19           which follows October 24, 1992.”.

20           (G) Amend paragraph (5) (42 U.S.C.  
21           6295(5)) by deleting the term “general service  
22           incandescent lamps”.

23           (H) Amend paragraphs (6) and (7) (42  
24           U.S.C. 6295(i)(6) and (7)) as follows:

1 (i) Redesignate paragraph (6) as (7)  
2 and paragraph (7) as (8), respectively.

3 (ii) Insert a new paragraph (6) to  
4 read as follows:

5 “(6)(A) Not later than January 1, 2015, the  
6 Secretary shall initiate a rulemaking procedure to  
7 determine if standards in effect for general service  
8 incandescent lamps should be amended to reflect  
9 lumen ranges with more stringent maximum watt-  
10 ages than those set forth in subparagraph (1)(A).  
11 This rulemaking shall not be limited to incandescent  
12 lamp technologies. The Secretary will also determine  
13 whether the exemptions for certain incandescent  
14 lamps should be maintained or discontinued. The  
15 Secretary may also give consideration to the feasi-  
16 bility of obtaining an efficacy of up 60 lumens per  
17 watt in determining whether the standards should be  
18 amended. In the event the Secretary determines that  
19 the standards in effect for general service incandes-  
20 cent lamps should be amended, the Secretary shall  
21 publish a final rule not later than January 1, 2017  
22 with an effective date no earlier than three years  
23 from the date the final rule is published. The Sec-  
24 retary shall also consider phased-in effective dates  
25 after considering the impact of any amendment on

1 manufacturers, retiring and re-purposing existing  
2 equipment, the cost impact of stranded investments,  
3 labor contracts, impact on workers, the cost of raw  
4 materials, and the time needed to work with retailers  
5 and lighting designers to revise sales and marketing  
6 strategies.

7 “(B) Not later than January 1, 2020, the Sec-  
8 retary shall initiate another rulemaking procedure to  
9 determine if standards in effect for general service  
10 incandescent lamps should be amended to reflect  
11 lumen ranges with more stringent maximum watt-  
12 ages than those set forth in subparagraph (1)(A).  
13 This rulemaking shall not be limited to incandescent  
14 lamp technologies. The Secretary will also determine  
15 whether the exemptions for certain incandescent  
16 lamps should be maintained or discontinued. The  
17 Secretary may also give consideration to the feasi-  
18 bility of obtaining an efficacy of up 60 lumens per  
19 watt in determining whether the standards should be  
20 amended. In the event the Secretary determines that  
21 the standards in effect for general service incandes-  
22 cent lamps should be amended, the Secretary shall  
23 publish a final rule not later than January 1, 2022  
24 with an effective date no earlier than three years  
25 from the date a final rule is published. The Sec-

1       retary may also consider phased-in effective dates  
2       after considering the impact of any amendment on  
3       manufacturers, retiring and re-purposing existing  
4       equipment, the cost impact of stranded investments,  
5       labor contracts, impact on workers, the cost of raw  
6       materials, and the time needed to work with retailers  
7       and lighting designers to revise sales and marketing  
8       strategies.”.

9               (I) Amend section 325(l) of the Energy  
10       Policy and Conservation Act (42 U.S.C.  
11       6295(l)), by adding at the end a new paragraph  
12       (4) as follows:

13       “(4) The Secretary shall prescribe an energy ef-  
14       ficiency standard for rough service, vibration service,  
15       three-way A-line lamps, 150 watt A-line lamps, and  
16       shatter-resistant lamps, only under the following cir-  
17       cumstances:

18               “(A) Within 60 days following the date of  
19       enactment of the Energy Efficiency Improve-  
20       ment Act of 2007, the Secretary, in consulta-  
21       tion with the National Electrical Manufacturers  
22       Association, shall collect annual United States  
23       unit sales for the calendar years 1990-2006 for  
24       each of these four types of lamps to determine  
25       their historical growth rate and construct a

1 model for each type of lamp based on coincident  
2 economic indicators that closely matches the  
3 historical annual growth rate of these lamps to  
4 provide a neutral comparison benchmark to  
5 model future unit sales after calendar year  
6 2006.

7 “(B) Beginning in calendar year 2010 and  
8 for each calendar year through 2025, the Sec-  
9 retary, in consultation with the National Elec-  
10 trical Manufacturers Association, shall collect  
11 actual United States unit sales data for these  
12 five types of lamps and calculate a rolling 3-  
13 year average sales rate for each type of lamp.

14 “(C) The first year that the reported 3-  
15 year average shows actual unit sales of rough  
16 service lamps achieving levels at least 100 per-  
17 cent higher than modeled unit sales for that  
18 same year, then the Secretary is directed to  
19 issue a finding that the index has been exceed-  
20 ed. The Secretary is directed to issue that find-  
21 ing within 90 days of the end of the previous  
22 calendar year, and within 12 months from the  
23 end of the previous calendar year for which the  
24 Secretary issues that finding, the Secretary  
25 shall complete an accelerated rulemaking to es-

1           tablish an energy conservation standard for  
2           rough service lamps. If the Secretary fails to  
3           complete an accelerated rulemaking within 12  
4           months as required, the Secretary shall require  
5           a shatter proof coating or equivalent compliant  
6           with NSF/ANSI 51, designed to contain glass  
7           in the event the glass envelop of the lamp is  
8           broken and provides effective containment over  
9           the life of the lamp, on rough service lamps,  
10          which can only sold at retail in packages of one  
11          lamp, effective one year from the end of the  
12          rulemaking period.

13                 “(D) The first year that the reported 3-  
14          year average shows actual unit sales of vibra-  
15          tion service lamps achieving levels at least 100  
16          percent higher than modeled unit sales for that  
17          same year, then the Secretary is directed to  
18          issue a finding that the index has been exceed-  
19          ed. The Secretary is directed to issue that find-  
20          ing within 90 days of the end of the previous  
21          calendar year, and within 12 months from the  
22          end of the previous calendar year for which the  
23          Secretary issues that finding, the Secretary  
24          shall complete an accelerated rulemaking to es-  
25          tablish an energy conservation standard for vi-

1           bration service lamps. If the Secretary fails to  
2           complete an accelerated rulemaking within 12  
3           months as required, the Secretary shall impose  
4           a maximum 40W cap upon vibration service  
5           lamps, effective one year from the end of the  
6           rulemaking period.

7           “(E) The first year that the reported 3-  
8           year average shows actual unit sales of three-  
9           way lamps achieving levels at least 100 percent  
10          higher than modeled unit sales for that same  
11          year, then the Secretary is directed to issue a  
12          finding that the index has been exceeded. The  
13          Secretary is directed to issue that finding with-  
14          in 90 days of the end of the previous calendar  
15          year, and within 12 months from the end of the  
16          previous calendar year for which the Secretary  
17          issues that finding, the Secretary shall complete  
18          an accelerated rulemaking to establish an en-  
19          ergy conservation standard for three-way lamps.  
20          If the Secretary fails to complete an accelerated  
21          rulemaking within 12 months as required, the  
22          Secretary shall impose a requirement that each  
23          filament in the lamp meet the new maximum  
24          wattage requirements for the respective lumen

1 range set forth in paragraph (1)(A), effective  
2 one year from the end of the rulemaking period.

3 “(F) The first year that the reported 3-  
4 year average shows actual unit sales of 150  
5 watt A-line lamps for the lumen range of 2601-  
6 3300 lumens (or for modified spectrum lumen  
7 range of 1951-2475 lumens) achieving levels at  
8 least 100 percent higher than modeled unit  
9 sales for that same year, then the Secretary is  
10 directed to issue a finding that the index has  
11 been exceeded. The Secretary is directed to  
12 issue that finding within 90 days of the end of  
13 the previous calendar year, and within 12  
14 months from the end of the previous calendar  
15 year for which the Secretary issues that finding,  
16 the Secretary shall complete an accelerated  
17 rulemaking to establish an energy conservation  
18 standard for 150 watt A-line lamps. If the Sec-  
19 retary fails to complete an accelerated rule-  
20 making within 12 months as required, the Sec-  
21 retary shall impose a maximum 95 watt cap  
22 upon these products for the lumen range of  
23 2601-3300 lumens, which must be sold in pack-  
24 ages of one lamp. For modified spectrum  
25 lamps, a 95 watt cap applies for products in the



1 lumen range of 1951-2475 lumens, which must  
2 be sold in packages of one lamp.

3 “(G) The first year that the reported 3-  
4 year average shows actual unit sales of shatter  
5 resistant lamps achieving levels at least 100  
6 percent higher than modeled unit sales for that  
7 same year, then the Secretary is directed to  
8 issue a finding that the index has been exceed-  
9 ed. The Secretary is directed to issue that find-  
10 ing within 90 days of the end of the previous  
11 calendar year, and within 12 months from the  
12 end of the previous calendar year for which the  
13 Secretary issues that finding, the Secretary  
14 shall complete an accelerated rulemaking to es-  
15 tablish an energy conservation standard for  
16 shatter resistant lamps. If the Secretary fails to  
17 complete an accelerated rulemaking within 12  
18 months as required, the Secretary shall require  
19 shatter resistant lamps sold at retail in only  
20 packages of one lamp, effective one year from  
21 the end of the rulemaking period.

22 “(H) If the Secretary issues a final rule  
23 prior to 2025 establishing an energy conserva-  
24 tion standard for any of the five types of lamps  
25 for which data collection is required by this

1 subsection, the requirement of this subsection  
2 to collect and model data for that type of lamp  
3 shall terminate, except in the case where the  
4 Secretary imposes a requirement established by  
5 the provisions of this subsection as a result of  
6 a failure to complete an accelerated rulemaking  
7 within 12 months, in which case the data collec-  
8 tion and modeling shall continue for another  
9 two years after the effective date of that re-  
10 quirement.”.

11 (b) CONSUMER EDUCATION AND LAMP LABELING.—

12 (1) Section 324(a)(2)(C) of the Energy Policy  
13 and Conservation Act is amended by adding at the  
14 end the following new clauses:

15 “(iii) Within 180 days of the date of enactment of  
16 this section, the Commission shall initiate a rulemaking  
17 to consider the effectiveness of current lamp labeling for  
18 power levels (watts), light output (lumens), and lamp life-  
19 time, and to consider alternative labeling approaches that  
20 will help consumers to understand new high-efficiency  
21 lamp products and to base their purchase decisions on the  
22 most appropriate lamp product that meets their require-  
23 ments for lighting level, light quality, lamp lifetime, and  
24 total lifecycle cost. The Commission shall complete this  
25 rulemaking within two years of enactment of this section,

1 and shall consider re-opening the rulemaking within 180  
2 days prior to the effective dates of the standards for gen-  
3 eral service incandescent lamps established in section  
4 325(i)(1)(A) (42 U.S.C. 6295(i)(1)(A)), if it determines  
5 that further labeling changes are needed to help con-  
6 sumers understand lamp alternatives.

7 “(iv) The Secretary, in cooperation with the Adminis-  
8 trator of the Environmental Protection Agency, the Sec-  
9 retary of Commerce, the Federal Trade Commission, light-  
10 ing and retail industry associations, energy efficiency or-  
11 ganizations, and any other entities that the Secretary de-  
12 termines to be appropriate, shall—

13 “(I) conduct an annual assessment of the mar-  
14 ket for general service lamps and compact fluores-  
15 cent lamps to identify trends in the market shares  
16 of lamp types, efficiencies, and light output levels  
17 purchased by residential and non-residential con-  
18 sumers, and to better understand the degree to  
19 which consumer decision-making is based on lamp  
20 power levels (watts), light output (lumens), lamp  
21 lifetime, and other factors including but not limited  
22 to the information required on FTC-mandated la-  
23 bels;

1 “(II) provide the results of this market assess-  
2 ment to the FTC for consideration in the rule-  
3 making described in subsection (a); and

4 “(III) carry out, in cooperation with industry  
5 trade associations, lighting industry members, utili-  
6 ties, and other interested parties a proactive national  
7 program of consumer awareness, information, and  
8 education that broadly utilizes the media and other  
9 effective communication techniques over an extended  
10 period of time to help consumers understand the  
11 lamp labels and make energy-efficient lighting  
12 choices that meet their needs.”.

13 (2) AUTHORIZATION OF APPROPRIATIONS.—  
14 There are authorized to be appropriated to the Sec-  
15 retary to carry out the amendments made by this  
16 section \$10,000,000 for each of the fiscal years  
17 2008 through 2012, to remain available until ex-  
18 pended.

19 (c) ENFORCEMENT.—Section 334 of the Energy Pol-  
20 icy and Conservation Act (42 U.S.C. 6304) is amended  
21 in the second sentence by inserting after “shall be brought  
22 by the Secretary” the following: “; and any such action  
23 to restrain any person from distributing in commerce a  
24 general service incandescent lamp that does not comply  
25 with the applicable standard established under section

1 325(i) of this title may also be brought by an attorney  
2 general of a State in the name of the State.”.

3 (d) OTHER PROVISIONS.—Section 327(b) of the En-  
4 ergy Policy and Conservation Act (42 U.S.C. 6297(b)) is  
5 amended by inserting before the semicolon at the end of  
6 paragraph (1) “, or in the case of any portion of any regu-  
7 lation that establishes requirements for general service in-  
8 candescent lamps, was adopted by the California Energy  
9 Commission or by the State of Nevada before July 27,  
10 2007, or in the case of any portion of any regulation that  
11 incorporates the specific lumen ranges and new maximum  
12 wattages established in section 325(i)(1)(A) for (i) general  
13 service incandescent lamps in the lumen range 1490-2600  
14 lumens and establishes an effective date no earlier than  
15 July 1, 2012, or (ii) general service incandescent lamps  
16 in the lumen ranges 1010-1489 lumens, 730-1009 lumens,  
17 and 310-729 lumens and establishes an effective date no  
18 earlier than 1 year prior to the effective date established  
19 for such lamps in section 325(i)(1)(A), adopted by the  
20 California Energy Commission no later than two years  
21 prior to the effective date established for such lamps in  
22 section 325(i)(1)(A)”.

23 (e) PROHIBITED ACTS.—Section 332(a) of the En-  
24 ergy Policy and Conservation Act (42 U.S.C. 6302(a)) is  
25 amended—

1 (1) in paragraph (5), by striking “; and” and  
2 inserting a semicolon; and

3 (2) by adding at the end the following new  
4 paragraph:

5 “(6) for any manufacturer, distributor, retailer,  
6 or private labeler to distribute in commerce an  
7 adapter designed to allow a lamp that does not have  
8 a medium screw base, with a voltage range at least  
9 partially within 110 and 130 volts, to be installed  
10 into a fixture or lampholder with a medium screw  
11 base socket.”.

12 **SEC. 1022. INCANDESCENT REFLECTOR LAMPS.**

13 (a) DEFINITIONS.—Section 321 of the Energy Policy  
14 and Conservation Act (42 U.S.C. 6291) is amended—

15 (1) in paragraph (30)(C)(ii)—

16 (A) in the matter preceding subclause  
17 (I)—

18 (i) by striking “or similar bulb shapes  
19 (excluding ER or BR)” and inserting “ER,  
20 BR, BPAR, or similar bulb shapes”; and

21 (ii) by striking “2.75” and inserting  
22 “2.25”; and

23 (B) by striking “is either—” and all that  
24 follows through subclause (II) and inserting

1 “has a rated wattage that is greater than 40  
2 watts.”; and

3 (2) by adding at the end the following:

4 “(52) The term ‘BPAR incandescent reflector  
5 lamp’ means a reflector lamp as shown in figure  
6 C78.21–278 on page 32 of ANSI C78.21–2003.

7 “(53)(A) The term ‘BR incandescent reflector  
8 lamp’ means a reflector lamp that has—

9 “(i) a bulged section below the major di-  
10 ameter of the bulb and above the approximate  
11 baseline of the bulb, as shown in figure 1 (RB)  
12 on page 7 of ANSI C79.1—1994, incorporated  
13 by reference in section 430.22 of title 10, Code  
14 of Federal Regulations (as in effect on the date  
15 of enactment of this paragraph); and

16 “(ii) a finished size and shape shown in  
17 ANSI C78.21—1989, including the referenced  
18 reflective characteristics in part 7 of ANSI  
19 C78.21.

20 “(B) The term ‘BR30’ refers to a BR incandes-  
21 cent reflector lamp with a diameter of 30/8ths of an  
22 inch and the term ‘BR40’ refers to a BR incandes-  
23 cent reflector lamp with a diameter of 40/8ths of an  
24 inch.

1           “(54)(A) The term ‘ER incandescent reflector  
2       lamp’ means a reflector lamp that has—

3           “(i) an elliptical section below the major  
4       diameter of the bulb and above the approximate  
5       baseline of the bulb, as shown in figure 1 (RE)  
6       on page 7 of ANSI C79.1—1994, incorporated  
7       by reference in section 430.22 of title 10, Code  
8       of Federal Regulations (as in effect on the date  
9       of enactment of this paragraph); and

10          “(ii) a finished size and shape shown in  
11       ANSI C78.21—1989, incorporated by reference  
12       in section 430.22 of title 10, Code of Federal  
13       Regulations (as in effect on the date of enact-  
14       ment of this paragraph).

15          “(B) The term ‘ER30’ refers to an ER incan-  
16       descent reflector lamp with a diameter of 30/8ths of  
17       an inch and the term ‘ER40’ refers to an ER incan-  
18       descent reflector lamp with a diameter of 40/8ths of  
19       an inch.

20          “(55) The term ‘R20 incandescent reflector  
21       lamp’ means a reflector lamp that has a face diame-  
22       ter of approximately 2.5 inches, as shown in figure  
23       1(R) on page 7 of ANSI C79.1—1994.”.

24       (b) STANDARDS FOR FLUORESCENT LAMPS AND IN-  
25       CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the



1 Energy Policy and Conservation Act (42 U.S.C. 6925(i))  
 2 is amended by striking paragraph (1) and inserting the  
 3 following:

4 “(1) STANDARDS.—

5 “(A) DEFINITION OF EFFECTIVE DATE.—

6 In this paragraph, except as specified in sub-  
 7 paragraphs (C) and (D), the term ‘effective  
 8 date’ means, with respect to each type of lamp  
 9 specified in a table contained in subparagraph  
 10 (B), the last day of the period of months cor-  
 11 responding to that type of lamp, as specified in  
 12 the table, that follows the date of enactment of  
 13 the Energy Efficiency Improvement Act of  
 14 2007.

15 “(B) MINIMUM STANDARDS.—Each of the  
 16 following general service fluorescent lamps and  
 17 incandescent reflector lamps manufactured  
 18 after the effective date specified in the tables  
 19 contained in this paragraph shall meet or ex-  
 20 ceed the following lamp efficacy and CRI stand-  
 21 ards:

“FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Pe- riod of Months)
4-foot medium bi-pin .....	>35 W	69	75.0	36
	≤35 W	45	75.0	36
2-foot U-shaped .....	>35 W	69	68.0	36
	≤35 W	45	64.0	36
8-foot slimline .....	65 W	69	80.0	18
	≤65 W	45	80.0	18

## “FLUORESCENT LAMPS—Continued

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Pe- riod of Months)
8-foot high output .....	>100 W	69	80.0	18
	≤100 W	45	80.0	18

## “INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Pe- riod of Months)
40–50 .....	10.5	36
51–66 .....	11.0	36
67–85 .....	12.5	36
86–115 .....	14.0	36
116–155 .....	14.5	36
156–205 .....	15.0	36

1                   “(C) EXEMPTIONS.—The standards speci-  
2                   fied in subparagraph (B) shall not apply to the  
3                   following types of incandescent reflector lamps:

4                   “(i) Lamps rated at 50 watts or less  
5                   of the following types: ER30, BR30,  
6                   BR40, and ER40 lamps.

7                   “(ii) Lamps rated at 65 watts of the  
8                   following types: BR30, BR40, and ER40  
9                   lamps.

10                  “(iii) R20 incandescent reflector  
11                  lamps of 45 watts or less.

12                  “(D) EFFECTIVE DATES.—

13                  “(i) ER, BR, AND BPAR LAMPS.—Ex-  
14                  cept as provided in subparagraph (A), the  
15                  standards specified in subparagraph (B)  
16                  shall apply with respect to ER incandes-

1 cent reflector lamps, BR incandescent re-  
2 flector lamps, BPAR incandescent reflector  
3 lamps, and similar bulb shapes on and  
4 after January 1, 2008.

5 “(ii) LAMPS BETWEEN 2.25–2.75  
6 INCHES IN DIAMETER.—The standards  
7 specified in subparagraph (B) shall apply  
8 with respect to incandescent reflector  
9 lamps with a diameter of more than 2.25  
10 inches, but not more than 2.75 inches, on  
11 and after January 1, 2008.”.

12 **SEC. 1023. METAL HALIDE LAMP FIXTURES.**

13 (a) DEFINITIONS.—Section 321 of the Energy Policy  
14 and Conservation Act (42 U.S.C. 6291) is amended by  
15 adding at the end the following:

16 “(57) The term ‘ballast’ means a device used  
17 with an electric discharge lamp to obtain necessary  
18 circuit conditions (voltage, current, and waveform)  
19 for starting and operating.

20 “(58) The term ‘metal halide lamp’ means a  
21 high intensity discharge lamp in which the major  
22 portion of the light is produced by radiation of metal  
23 halides and their products of dissociation, possibly in  
24 combination with metallic vapors.

1           “(59) The term ‘metal halide lamp fixture’  
2           means a light fixture for general lighting application  
3           designed to be operated with a metal halide lamp  
4           and a ballast for a metal halide lamp.

5           “(60) The term ‘metal halide ballast’ means a  
6           ballast used to start and operate metal halide lamps.

7           “(61) The term ‘pulse-start metal halide bal-  
8           last’ means an electronic or electromagnetic ballast  
9           that starts a pulse start metal halide lamp with high  
10          voltage pulses. Lamps are started by first providing  
11          a high voltage pulse for ionization of the gas to  
12          produce a glow discharge. To complete the starting  
13          process, power is provided by the ballast to sustain  
14          the discharge through the glow-to-arc transition.

15          “(62) The term ‘probe-start metal halide bal-  
16          last’ means a ballast that starts a probe start metal  
17          halide lamp which contains a third starting electrode  
18          (probe) in the arc tube. This ballast does not gen-  
19          erally contain an igniter and instead starts lamps  
20          with high ballast open circuit voltage.

21          “(63) The term ‘electronic ballast’ means a de-  
22          vice that uses semiconductors as the primary means  
23          to control lamp starting and operation.

1           “(64) The term ‘general lighting application’  
2           means lighting that provides an interior or exterior  
3           area with overall illumination.

4           “(65) The term ‘ballast efficiency’ for a high in-  
5           tensity discharge fixture means the efficiency of a  
6           lamp and ballast combination, expressed as a per-  
7           centage, and calculated by  $\text{Efficiency} = \text{Pout}/\text{Pin}$ , as  
8           measured. Pout is the measured operating lamp  
9           wattage, and Pin is the measured operating input  
10          wattage. The lamp, and the capacitor when it is pro-  
11          vided, is to constitute a nominal system in accord-  
12          ance with the ANSI Standard C78.43-2004. Pin and  
13          Pout are to be measured after lamps have been sta-  
14          bilized according to Section 4.4 of ANSI Standard  
15          C82.6-2005 using a wattmeter with accuracy speci-  
16          fied in Section 4.5 of ANSI Standard C82.6-2005  
17          for ballasts with a frequency of 60 Hz, and shall  
18          have a basic accuracy of  $\pm 0.5$  percent at the higher  
19          of—

20                 “(A) three times the output operating fre-  
21                 quency of the ballast; or

22                 “(B) 2 kHz for ballast with a frequency  
23                 greater than 60 Hz.

1       The Secretary may, by rule, modify this definition if  
2       he determines that such modification is necessary or  
3       appropriate to carry out the purposes of this Act.”.

4       (b) COVERAGE.—Section 322(a) of the Energy Policy  
5       and Conservation Act (42 U.S.C. 6292(a)) is amended—

6               (1) by redesignating paragraph (19) as para-  
7       graph (20); and

8               (2) by inserting after paragraph (18) the fol-  
9       lowing:

10              “(19) Metal halide lamp fixtures.”.

11       (c) TEST PROCEDURES.—Section 323(c) of the En-  
12       ergy Policy and Conservation Act (42 U.S.C. 6293(c)) is  
13       amended by adding at the end the following:

14              “(17) Test procedures for metal halide lamp ballasts  
15       shall be based on American National Standards Institute  
16       Standard C82.6-2005, entitled ‘Ballasts for High Inten-  
17       sity Discharge Lamps—Method of Measurement’.”.

18       (d) LABELING.—Section 324(a)(2) of the Energy  
19       Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is  
20       amended—

21               (1) by redesignating subparagraphs (C) through  
22       (G) as subparagraphs (D) through (H), respectively;  
23       and

24               (2) by inserting after subparagraph (B) the fol-  
25       lowing:

1       “(C) The Commission shall prescribe labeling rules  
2 under this section applicable to the covered product speci-  
3 fied in paragraph (19) of section 322(a) and to which  
4 standards are applicable under section 325. Such rules  
5 shall provide that the labeling of any metal halide lamp  
6 fixture manufactured on or after the later of January 1,  
7 2009, or nine months after enactment of this subpara-  
8 graph, will indicate conspicuously, in a manner prescribed  
9 by the Commission under subsection (b) by July 1, 2008,  
10 a capital letter ‘E’ printed within a circle on the packaging  
11 of the fixture, and on the ballast contained in such fix-  
12 ture.”.

13       (e) STANDARDS.—Section 325 of the Energy Policy  
14 and Conservation Act (42 U.S.C. 6295) is amended—

15               (1) by redesignating subsection (gg) as sub-  
16 section (hh);

17               (2) by inserting after subsection (ff) the fol-  
18 lowing:

19       “(gg) METAL HALIDE LAMP FIXTURES.—

20               “(1)(A) Metal halide lamp fixtures designed to  
21 be operated with lamps rated greater than or equal  
22 to 150 watts but less than or equal to 500 watts  
23 shall contain—

24                       “(i) a pulse-start metal halide ballast with  
25 a minimum ballast efficiency of 88 percent;

1           “(ii) a magnetic probe-start ballast with a  
2           minimum ballast efficiency of 94 percent; or

3           “(iii) a non-pulse-start electronic ballast  
4           with a minimum ballast efficiency of 92 percent  
5           for wattages greater than 250 watts and a min-  
6           imum ballast efficiency of 90 percent for watt-  
7           ages less than or equal to 250 watts.

8           “(B) The standards in subparagraph (A) do not  
9           apply to fixtures with regulated lag ballasts, fixtures  
10          that use electronic ballasts that operate at 480 volts,  
11          or fixtures that meet all of the following criteria:

12           “(i) Rated only for 150 watt lamps.

13           “(ii) Rated for use in wet locations as  
14           specified by the National Electrical Code 2002,  
15           Section 410.4(A).

16           “(iii) Contain a ballast that is rated to op-  
17           erate at ambient air temperatures above 50° C  
18           as specified by UL 1029-2001.

19           “(C) The standard in subparagraph (A) shall  
20           apply to metal halide lamp fixtures manufactured on  
21           or after the later of January 1, 2009, or 9 months  
22           after the date of enactment of this subsection.

23           “(2) Not later than January 1, 2012, the Sec-  
24           retary shall publish a final rule to determine whether  
25           the standards established under paragraph (1)



1       should be amended. Such final rule shall contain the  
2       amended standards, if any, and shall apply to prod-  
3       ucts manufactured after January 1, 2015.

4           “(3) Not later than January 1, 2019, the Sec-  
5       retary shall publish a final rule to determine whether  
6       the standards then in effect should be amended.  
7       Such final rule shall contain the amended standards,  
8       if any, and shall apply to products manufactured  
9       after January 1, 2022.

10           “(4) Notwithstanding any other provision of  
11       law, any standard established pursuant to this sub-  
12       section may contain both design and performance re-  
13       quirements.”; and

14           (3) in subsection (hh), as so redesignated by  
15       paragraph (1) of this subsection, by striking “(ff)”  
16       both places it appears and inserting “(gg)”.

17       (f) EFFECT ON OTHER LAW.—Section 327(c) of the  
18       Energy Policy and Conservation Act (42 U.S.C. 6297(c))  
19       is amended—

20           (1) by striking the period at the end of para-  
21       graph (8)(B) and inserting “; and”; and

22           (2) by adding at the end the following:

23           “(9) is a regulation concerning metal halide  
24       lamp fixtures adopted by the California Energy  
25       Commission on or before January 1, 2011. If the

1 Secretary fails to issue a final rule within 6 months  
2 after the deadlines for rulemakings in section  
3 325(gg) then, notwithstanding any other provision of  
4 this section, preemption does not apply to a regula-  
5 tion concerning metal halide lamp fixtures adopted  
6 by the California Energy Commission on or before  
7 July 1, 2015, if the Secretary misses the deadline  
8 specified in paragraph (2) of section 325(gg), or on  
9 or before July 11, 2022, if the Secretary misses the  
10 deadline specified in paragraph (3) of section  
11 325(gg).”.

12 **SEC. 1024. USE OF ENERGY EFFICIENT LIGHTING FIXTURES**  
13 **AND BULBS.**

14 (a) IN GENERAL.—Chapter 33 of title 40, United  
15 States Code, is amended—

16 (1) by redesignating sections 3313, 3314, and  
17 3315 as sections 3314, 3315, and 3316, respectively;  
18 and

19 (2) by inserting after section 3312 the fol-  
20 lowing:

21 **“§ 3313. Use of energy efficient lighting fixtures and**  
22 **bulbs**

23 “(a) CONSTRUCTION AND ALTERATION OF PUBLIC  
24 BUILDINGS.—Each public building constructed or signifi-  
25 cantly altered by the Administrator of General Services

1 shall be equipped, to the maximum extent feasible as de-  
2 termined by the Administrator, with lighting fixtures and  
3 bulbs that are energy efficient.

4 “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each  
5 lighting fixture or bulb that is replaced by the Adminis-  
6 trator in the normal course of maintenance of public build-  
7 ings shall be replaced, to the maximum extent feasible as  
8 determined by the Administrator, with a lighting fixture  
9 or bulb that is energy efficient.

10 “(c) CONSIDERATIONS.—In making a determination  
11 under this section concerning the feasibility of installing  
12 a lighting fixture or bulb that is energy efficient, the Ad-  
13 ministrator shall consider—

14 “(1) the life cycle cost effectiveness of the fix-  
15 ture or bulb;

16 “(2) the compatibility of the fixture or bulb  
17 with existing equipment;

18 “(3) whether use of the fixture or bulb could re-  
19 sult in interference with productivity;

20 “(4) the aesthetics relating to use of the fixture  
21 or bulb; and

22 “(5) such other factors as the Administrator  
23 determines appropriate.

1       “(d) ENERGY STAR.—A lighting fixture or bulb shall  
2 be treated as being energy efficient for purposes of this  
3 section if—

4               “(1) the fixture or bulb is certified under the  
5 Energy Star program established by section 324A of  
6 the Energy Policy and Conservation Act (42 U.S.C.  
7 6294a);

8               “(2) in the case of all LED luminaires, lamps,  
9 and systems whose efficacy (lumens per watt) and  
10 Color Rendering Index (CRI) meet the requirements  
11 for minimum luminaire efficacy and CRI for the En-  
12 ergy Star certification, as verified by an independent  
13 third-party testing laboratory that conducts its tests  
14 according to the procedures and recommendations of  
15 the Illuminating Engineering Society of North  
16 America, even if these luminaires, lamps, and sys-  
17 tems have not received such certification; or

18               “(3) the Administrator has otherwise deter-  
19 mined that the fixture or bulb is energy efficient.

20       “(e) SIGNIFICANT ALTERATIONS.—A public building  
21 shall be treated as being significantly altered for purposes  
22 of subsection (a) if the alteration is subject to congres-  
23 sional approval under section 3307.

1       “(f) EFFECTIVE DATE.—The requirements of sub-  
2 sections (a) and (b) shall take effect one year after the  
3 date of enactment of this subsection.”.

(b) CONFORMING AMENDMENT.—The analysis for chapter 33 of title 40, United States Code, is amended by striking the items relating to sections 3313, 3314, and 3315 and inserting the following:

“3313. Use of energy efficient lighting fixtures and bulbs.

“3314. Delegation.

“3315. Report to Congress.

“3316. Certain authority not affected.”.

8 SEC. 1025. PROTECTING CHILDREN AND SENSITIVE PER-  
9 SONS FROM MERCURY.

10           Notwithstanding any requirements to increase energy  
11 efficient lighting in public buildings, no school, hospital,  
12 nursing home, or daycare center can be compelled to in-  
13 stall or utilize such energy efficient lighting technology  
14 if that energy efficient lighting technology contains mer-  
15 cury.

16 **PART 3—RESIDENTIAL WEATHERIZATION**

**17 SEC. 1031. BASELINE BUILDING DESIGNS.**

Section 327(f)(3)(D) of the Energy Policy and Conservation Act (42 U.S.C. 6297(f)(3)(D)) is amended to read as follows:

“(D) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline build-

1       ing designs contain a covered product subject to an  
2       energy conservation standard established in or pre-  
3       scribed under section 325, the baseline building de-  
4       signs are based on the efficiency level for such cov-  
5       ered product which—

6               “(i) meets but does not exceed such stand-  
7       ard;

8               “(ii) is the efficiency level required by a  
9       regulation of that State for which the Secretary  
10      has issued a rule granting a waiver under sub-  
11      section (d) of this section; or

12              “(iii) is a level that, when evaluated in the  
13      baseline building design, the State has found to  
14      be feasible and cost-effective.”.

15   **SEC. 1032. REAUTHORIZATION OF WEATHERIZATION AS-**  
16       **SISTANCE PROGRAM.**

17       (a) AMENDMENT.—Section 422 of the Energy Con-  
18      servation and Production Act (42 U.S.C. 6872) is amend-  
19      ed by striking “\$500,000,000 for fiscal year 2006,  
20      \$600,000,000 for fiscal year 2007, and \$700,000,000 for  
21      fiscal year 2008” and inserting “\$600,000,000 for fiscal  
22      year 2007, and \$750,000,000 for each of fiscal years  
23      2008, 2009, 2010, 2011, and 2012. From those sums, the  
24      Secretary is authorized to initiate an Alternative Delivery  
25      System Pilot Project to examine options for decreasing en-

1 ergy consumption associated with heating and cooling  
2 while increasing household participation by focusing on  
3 key energy saving components. Alternative Delivery Sys-  
4 tem Pilot Projects should be undertaken in both hot and  
5 cold urban areas”.

6 (b) SUSTAINABLE ENERGY RESOURCES FOR CON-  
7 SUMERS GRANTS.—(1) The Secretary of Energy may  
8 make funding available to local Weatherization agencies  
9 from amounts authorized under the amendment made by  
10 subsection (a) to expand the weatherization assistance  
11 program for residential buildings to include materials,  
12 benefits, and renewable and domestic energy technologies  
13 not currently covered by the program, provided that the  
14 State Weatherization grantee has certified that the appli-  
15 cant has the capacity to carry out the proposed activities  
16 and that the grantee will include the project in its finan-  
17 cial oversight of the Weatherization Assistance program.

18 (2) In selecting the grants, the program shall give  
19 priority to—

20 (A) the expected effectiveness and benefits of  
21 the proposed project to low- and moderate income  
22 energy consumers;

23 (B) the potential for replication of successful  
24 results;

1 (C) the impact on the health and safety and en-  
2 ergy costs of those served; and

3 (D) the extent of partnerships with other public  
4 and private entities that contribute to the resources  
5 and implementation of the program, including finan-  
6 cial partnerships.

7 (3) Funding for such projects may equal up to two  
8 percent of funding in any fiscal year, provided that no  
9 funding is utilized for Sustainable Energy Resources for  
10 Consumers grants in any fiscal year in which Weatheriza-  
11 tion appropriations are less than \$275,000,000.

12 **PART 4—COMMERCIAL AND FEDERAL BUILDING**  
13 **EFFICIENCY**

14 **SEC. 1041. DEFINITIONS.**

15 In this part:

16 (1) FEDERAL FACILITY.—

17 (A) IN GENERAL.—The term “Federal fa-  
18 cility” means any building or facility the in-  
19 tended use of which requires the building or fa-  
20 cility to be—

21 (i) accessible to the public; and

22 (ii) constructed or altered by or on be-  
23 half of the United States.

24 (B) EXCLUSIONS.—The term “Federal fa-  
25 cility” does not include a privately-owned resi-



1           dential or commercial structure that is not  
2           leased by the Federal Government.

3           (2) HIGH-PERFORMANCE GREEN BUILDING.—

4           The term “high-performance green building” means  
5           a building that, during its life-cycle—

6                   (A) reduces energy, water, and material re-  
7                   source use;

8                   (B) improves indoor environmental quality  
9                   including, reducing indoor pollution, improving  
10                  thermal comfort, and improving lighting and  
11                  acoustic environments that affect occupant  
12                  health and productivity;

13                  (C) reduces negative impacts on the envi-  
14                  ronment throughout the life-cycle of the build-  
15                  ing, including air and water pollution and waste  
16                  generation;

17                  (D) increases the use of environmentally  
18                  preferable products, including biobased, recycled  
19                  content, and nontoxic products with lower life-  
20                  cycle impacts;

21                  (E) increases reuse and recycling opportu-  
22                  nities;

23                  (F) integrates systems in the building;

24                  (G) reduces the environmental and energy  
25                  impacts of transportation through building loca-

1           tion and site design that support a full range  
2           of transportation choices for users of the build-  
3           ing; and

4           (H) considers indoor and outdoor effects of  
5           the building on human health and the environ-  
6           ment, including—

7                   (i) improvements in worker produc-  
8                   tivity;

9                   (ii) the life-cycle impacts of building  
10                  materials and operations; and

11                  (iii) other factors that the Secretary  
12                  considers to be appropriate.

13           (3) LIFE-CYCLE.—The term “life-cycle”, with  
14           respect to a high-performance green building, means  
15           all stages of the useful life of the building (including  
16           components, equipment, systems, and controls of the  
17           building) beginning at conception of a green building  
18           project and continuing through site selection, design,  
19           construction, landscaping, commissioning, operation,  
20           maintenance, renovation, deconstruction or demoli-  
21           tion, removal, and recycling of the green building.

22           (4) LIFE-CYCLE ASSESSMENT.—The term “life-  
23           cycle assessment” means a comprehensive system  
24           approach for measuring the environmental perform-  
25           ance of a product or service over the life of the prod-

1       uct or service, beginning at raw materials acquisition  
2       and continuing through manufacturing, transpor-  
3       tation, installation, use, reuse, and end-of-life waste  
4       management.

5           (5) LIFE-CYCLE COSTING.—The term “life-cycle  
6       costing”, with respect to a high-performance green  
7       building, means a technique of economic evaluation  
8       that—

9           (A) sums, over a given study period, the  
10       costs of initial investment (less resale value), re-  
11       placements, operations (including energy use),  
12       and maintenance and repair of an investment  
13       decision; and

14       (B) is expressed—

15           (i) in present value terms, in the case  
16       of a study period equivalent to the longest  
17       useful life of the building, determined by  
18       taking into consideration the typical life of  
19       such a building in the area in which the  
20       building is to be located; or

21           (ii) in annual value terms, in the case  
22       of any other study period.

23       (6) PRACTICES.—The term “practices” mean  
24       design, financing, permitting, construction, commis-  
25       sioning, operation and maintenance, and other prac-

1        tices that contribute to achieving zero-net-energy  
2        commercial buildings.

3            (7) SECRETARY.—The term “Secretary” means  
4        the Secretary of Energy.

5            (8) ZERO-NET-ENERGY.—The term “zero-net-  
6        energy commercial building” means a building that  
7        is designed, constructed, and operated to—

8            (A) produce on site and distribute as much  
9            energy on an annual basis as it uses from exter-  
10        nal sources;

11           (B) result in no net emissions of green-  
12        house gases; and

13           (C) be economically viable to construct and  
14        operate, through a combination of ultra energy-  
15        efficient building materials and equipment, ef-  
16        fective control systems, and onsite power gen-  
17        eration from renewable or other energy sources;  
18        and

19   **SEC. 1042. HIGH-PERFORMANCE GREEN BUILDINGS.**

20        (a) POLICY.—It shall be the policy of the United  
21        States that all Federal buildings shall be high-perform-  
22        ance green buildings, to the extent that it is cost-justified.  
23        The Secretary shall provide technical assistance to other  
24        departments and agencies to achieve this policy.

1 (b) REPORT.—Not later than 2 years after the date  
2 of enactment of this Act, and biennially thereafter, the  
3 Secretary shall submit to Congress a report that—

4 (1) describes the status of the green building  
5 initiatives by the Department and other Federal pro-  
6 grams in effect as of the date of the report, includ-  
7 ing—

8 (A) the extent to which the programs are  
9 being carried out; and

10 (B) the status of funding requests and ap-  
11 propriations for those programs;

12 (2) summarizes and highlights development, at  
13 the State and local level, of green building initia-  
14 tives, including executive orders, policies, or laws  
15 adopted promoting green building (including the sta-  
16 tus of implementation of those initiatives); and

17 (3) includes, for the 2-year period covered by  
18 the report, recommendations to address each of the  
19 matters, and a plan for implementation of each rec-  
20 ommendation, described in paragraph (1) of this  
21 subsection.

22 **SEC. 1043. ZERO-NET-ENERGY COMMERCIAL BUILDINGS**  
23 **GOAL.**

24 (a) GOAL.—The Secretary, in collaboration with  
25 stakeholders, shall study, refine, and adopt a national goal

1 to reduce commercial building energy use and achieve  
2 zero-net-energy commercial buildings. Unless the Sec-  
3 retary concludes that such targets are unachievable or un-  
4 realistic or not cost effective, the goal shall include the  
5 objective that all new commercial buildings constructed  
6 after the beginning of 2025 are zero-net-energy commer-  
7 cial buildings.

8 (b) FEDERAL COMPLIANCE WITH GOAL.—The Sec-  
9 retary shall further identify and adopt a strategy of devel-  
10 opment and widespread deployment of technologies, prac-  
11 tices, and policies leading to zero-net-energy performance  
12 for all Federal buildings in accordance with the adopted  
13 goal.

14 **SEC. 1044. PUBLIC OUTREACH.**

15 The Secretary shall carry out public outreach to in-  
16 form individuals and entities of the information and serv-  
17 ices available Government-wide by—

18 (1) establishing and maintaining a national  
19 high-performance green building clearinghouse, in-  
20 cluding on the Internet, that—

21 (A) identifies existing similar efforts and  
22 coordinates activities of common interest; and

23 (B) provides information relating to high-  
24 performance green buildings, including

1           hyperlinks to Internet sites that describe the ac-  
2           tivities, information, and resources of—

3                       (i) the Federal Government;

4                       (ii) State and local governments;

5                       (iii) the private sector (including non-  
6           governmental and nonprofit entities and  
7           organizations); and

8                       (iv) international organizations;

9           (2) identifying and recommending educational  
10          resources for implementing high-performance green  
11          building practices, including security and emergency  
12          benefits and practices;

13          (3) providing access to technical assistance on  
14          using tools and resources to make more cost-effec-  
15          tive, energy-efficient, health-protective, and environ-  
16          mentally beneficial decisions for constructing high-  
17          performance green buildings, particularly tools avail-  
18          able to conduct life-cycle costing and life-cycle as-  
19          sessment;

20          (4) providing information on application proc-  
21          esses for certifying a high-performance green build-  
22          ing, including certification and commissioning;

23          (5) providing technical information, market re-  
24          search, or other forms of assistance or advice that

1 would be useful in planning and constructing high-  
2 performance green buildings;

3 (6) using such other methods as are determined  
4 by the Secretary to be appropriate;

5 (7) surveying existing research and studies re-  
6 lating to high-performance green buildings;

7 (8) coordinating activities of common interest;

8 (9) developing and recommending a high-per-  
9 formance green building practices that—

10 (A) identify information and research  
11 needs, including the relationships between  
12 health, occupant productivity, and each of—

13 (i) pollutant emissions from materials  
14 and products in the building;

15 (ii) natural day lighting;

16 (iii) ventilation choices and tech-  
17 nologies;

18 (iv) heating, cooling, and system con-  
19 trol choices and technologies;

20 (v) moisture control and mold;

21 (vi) maintenance, cleaning, and pest  
22 control activities;

23 (vii) acoustics; and



1 (viii) other issues relating to the  
2 health, comfort, productivity, and perform-  
3 ance of occupants of the building; and

4 (B) promote the development and dissemi-  
5 nation of high-performance green building  
6 measurement tools that, at a minimum, may be  
7 used—

8 (i) to monitor and assess the life-cycle  
9 performance of facilities (including dem-  
10 onstration projects) built as high-perform-  
11 ance green buildings; and

12 (ii) to perform life-cycle assessments;  
13 (10) assisting the budget and life-cycle costing  
14 functions;

15 (11) studying and identifying potential benefits  
16 of green buildings relating to security, natural dis-  
17 aster, and emergency needs of the Federal Govern-  
18 ment; and

19 (12) supporting other research initiatives deter-  
20 mined by the Secretary.

21 **SEC. 1045. INCENTIVES.**

22 As soon as practicable after the date of enactment  
23 of this Act, the Secretary shall identify incentives to en-  
24 courage the use of green buildings and related technology

1 in the operations of the Federal Government, including  
2 through—

3 (1) the provision of recognition awards; and

4 (2) the maximum feasible retention of financial  
5 savings in the annual budgets of Federal agencies  
6 for use in reinvesting in future green building initia-  
7 tives.

8 **SEC. 1046. FEDERAL PROCUREMENT.**

9 (a) IN GENERAL.—Not later than 2 years after the  
10 date of enactment of this Act, the Director of the Office  
11 of Federal Procurement Policy, in consultation with the  
12 Secretary and the Under Secretary of Defense for Acquisi-  
13 tion, Technology, and Logistics, shall promulgate revisions  
14 of the applicable acquisition regulations, to take effect as  
15 of the date of promulgation of the revisions—

16 (1) to direct any Federal procurement execu-  
17 tives involved in the acquisition, construction, or  
18 major renovation (including contracting for the con-  
19 struction or major renovation) of any facility—

20 (A) to employ integrated design principles;

21 (B) to improve site selection for environ-  
22 mental and community benefits;

23 (C) to optimize building and systems en-  
24 ergy performance;

25 (D) to protect and conserve water;

1 (E) to enhance indoor environmental qual-  
2 ity; and

3 (F) to reduce environmental impacts of  
4 materials and waste flows; and

5 (2) to direct Federal procurement executives in-  
6 volved in leasing buildings, to give preference to the  
7 lease of facilities that—

8 (A) are energy-efficient; and

9 (B) to the maximum extent practicable,  
10 have applied contemporary high-performance  
11 and sustainable design principles during con-  
12 struction or renovation.

13 (b) GUIDANCE.—Not later than 90 days after the  
14 date of promulgation of the revised regulations under sub-  
15 section (a), the Director of the Office of Procurement Pol-  
16 icy shall issue guidance to all Federal procurement execu-  
17 tives providing direction and instructions to renegotiate  
18 the design of proposed facilities, renovations for existing  
19 facilities, and leased facilities to incorporate improvements  
20 that are consistent with this section.

21 **SEC. 1047. DEMONSTRATION PROJECT.**

22 The Secretary shall develop guidelines and best prac-  
23 tices to implement Federal high-performance green build-  
24 ings.

1   **SEC. 1048. ENERGY EFFICIENCY FOR DATA CENTER BUILD-**  
2                   **INGS.**

3           (a) IN GENERAL.—(1) Not later than 90 days after  
4 the date of enactment of this Act, the Secretary of Energy  
5 and Administrator of the Environmental Protection Agen-  
6 cy shall jointly, after consulting with information tech-  
7 nology industry and other interested parties, initiate a vol-  
8 untary national information program for those types of  
9 data centers and data center equipment and facilities that  
10 are widely used and for which there is a potential for sig-  
11 nificant data center energy savings as a result of such pro-  
12 gram.

13           (2) Such program shall—

14                   (A) consistent with the objectives of paragraph  
15 (1), determine the type of data center and data cen-  
16 ter equipment and facilities to be covered under such  
17 program; and

18                   (B) include specifications, measurements, and  
19 benchmarks that will enable data center operators to  
20 make more informed decisions about the energy effi-  
21 ciency and costs of data centers, and that—

22                           (i) reflect the total energy consumption of  
23 data centers, including both equipment and fa-  
24 cilities, taking into account—

1 (I) the performance and utilization of  
2 servers, data storage devices, and other in-  
3 formation technology equipment;

4 (II) the efficiency of heating, ventila-  
5 tion, and air conditioning, cooling, and  
6 power conditioning systems;

7 (III) energy savings from the adoption  
8 of software and data management tech-  
9 niques; and

10 (IV) other factors determined by the  
11 organization described in subsection (b);

12 (ii) allow for creation of separate specifica-  
13 tions, measurements, and benchmarks based on  
14 data center size and function, as well as other  
15 appropriate characteristics determined by the  
16 organization described in subsection (b);

17 (iii) advance the design and implementa-  
18 tion of efficiency technologies to the maximum  
19 extent economically practical; and

20 (iv) provide to data center operators in the  
21 private sector and the Federal Government in-  
22 formation about best practices and purchasing  
23 decisions that reduce the energy consumption of  
24 data centers;

1 (C) publish the information described in sub-  
2 paragraph (B), which may be disseminated through  
3 catalogs, trade publications, the Internet, or other  
4 mechanisms, that will allow data center operators to  
5 assess the energy consumption and potential cost  
6 savings of alternative data centers and data center  
7 equipment and facilities; and

8 (D) not later than 1 year after the date of en-  
9 actment of this Act, and thereafter on an ongoing  
10 basis, transmit the information described in sub-  
11 paragraph (B) to the Secretary and the Adminis-  
12 trator.

13 (3) Such program shall be developed and coordinated  
14 by the data center efficiency organization described in sub-  
15 section (b) according to commonly accepted procedures for  
16 the development of specifications, measurements, and  
17 benchmarks.

18 (b) DATA CENTER EFFICIENCY ORGANIZATION.—  
19 Upon creation of the program under subsection (a), the  
20 Secretary and the Administrator shall jointly designate an  
21 information technology industry organization to coordi-  
22 nate the program. Such organization shall—

23 (1) consist of interested parties that have exper-  
24 tise in energy efficiency and in the development, op-  
25 eration, and functionality of computer data centers,

1 information technology equipment, and software, as  
2 well as representatives of hardware manufacturers,  
3 data center operators, and facility managers;

4 (2) obtain and address input from Department  
5 of Energy National Laboratories or any college, uni-  
6 versity, research institution, industry association,  
7 company, or public interest group with applicable ex-  
8 pertise in any of the areas listed in paragraph (1)  
9 of this subsection;

10 (3) follow commonly accepted procedures for  
11 the development of specifications and accredited  
12 standards development processes;

13 (4) have a mission to develop and promote en-  
14 ergy efficiency for data centers and information  
15 technology; and

16 (5) have the primary responsibility to oversee  
17 the development and publishing of the information,  
18 measurements, and benchmarks described in sub-  
19 section (a) and transmission of such information to  
20 the Secretary and the Administrator for their adop-  
21 tion under subsection (c).

22 (c) ADOPTION OF SPECIFICATIONS.—The Secretary  
23 and the Administrator shall jointly, in accordance with the  
24 requirements of section 12(d) of the National Technology  
25 Transfer Advancement Act of 1995, adopt and publish the

1 specifications, measurements, and benchmarks described  
2 in subsection (a) for use by the Federal Energy Manage-  
3 ment Program and the Energy Star program as energy  
4 efficiency requirements for the purposes of those pro-  
5 grams.

6 (d) MONITORING.—The Secretary and the Adminis-  
7 trator shall jointly monitor and evaluate the efforts to de-  
8 velop the program described in subsection (a) and, not  
9 later than 3 years after the date of enactment of this Act,  
10 shall make a determination as to whether such program  
11 is consistent with the objectives of subsection (a).

12 (e) ALTERNATIVE SYSTEM.—If the Secretary and the  
13 Administrator make a determination under subsection (d)  
14 that a voluntary national information program for data  
15 centers consistent with the objectives of subsection (a) has  
16 not been developed, the Secretary and the Administrator  
17 shall jointly, after consultation with the National Institute  
18 of Standards and Technology, develop, not later than 2  
19 years after such determination, and implement the pro-  
20 gram under subsection (a).

21 (f) PROTECTION OF PROPRIETARY INFORMATION.—  
22 The Secretary, the Administrator, or the data center effi-  
23 ciency organization shall not disclose any proprietary in-  
24 formation or trade secrets provided by any individual or  
25 company for the purposes of carrying out this program.



1 (g) DEFINITIONS.—For purposes of this section:

2 (1) The term “data center” means any facility  
3 that primarily contains electronic equipment used to  
4 process, store, and transmit digital information,  
5 which may be—

6 (A) a free-standing structure; or

7 (B) a facility within a larger structure,  
8 that utilizes environmental control equipment to  
9 maintain the proper conditions for the operation of  
10 electronic equipment.

11 (2) The term “data center operator” means any  
12 person or government entity that builds or operates  
13 a data center or purchases data center services,  
14 equipment, and facilities.

15 **SEC. 1049. AUTHORIZATION OF APPROPRIATIONS.**

16 (a) IN GENERAL.—In addition to amounts authorized  
17 under subsection (b), there are authorized to be appro-  
18 priated to carry out this part—

19 (1) \$10,000,000 for fiscal year 2008; and

20 (2) \$20,000,000 for each of the fiscal years  
21 2009 through 2014,

22 to remain available until expended.

23 (b) ENERGY EFFICIENCY FOR DATA CENTER BUILD-  
24 INGS.—There are authorized to be appropriated to each  
25 of the Secretary and the Administrator for carrying out

1 section 1048 \$250,000 for each of the fiscal years 2008  
2 through 2012.

3 **PART 5—INDUSTRIAL ENERGY EFFICIENCY**

4 **SEC. 1061. INDUSTRIAL ENERGY EFFICIENCY.**

5 (a) AMENDMENT.—Title III of the Energy Policy and  
6 Conservation Act (42 U.S.C. 6201 and following) is  
7 amended by adding the following after part D:

8 **“PART E—INDUSTRIAL ENERGY EFFICIENCY**

9 **“SEC. 371. SURVEY OF WASTE INDUSTRIAL ENERGY RECOV-**  
10 **ERY AND POTENTIAL USE.**

11 “Congress finds that—

12 “(1) the Nation should encourage the use of  
13 otherwise wasted energy and the development of  
14 combined heat and power and other waste energy re-  
15 covery projects where there is wasted thermal energy  
16 in large volumes at potentially useful temperatures;

17 “(2) such projects would increase energy effi-  
18 ciency and lower pollution by generating power with  
19 no incremental fossil fuel consumption;

20 “(3) because recovered waste energy and com-  
21 bined heat and power projects are associated with  
22 end-uses of thermal energy and electricity at the  
23 local level, they help avoid new transmission lines,  
24 reduce line losses, reduce local air pollutant emis-

1       sions, and reduce vulnerability to extreme weather  
2       and terrorism; and

3           “(4) States, localities, electric utilities, and  
4       other electricity customers may benefit from private  
5       investments in recovered waste energy and combined  
6       heat and power projects at industrial and commer-  
7       cial sites by avoiding generation, transmission and  
8       distribution expenses, and transmission line loss ex-  
9       penses that may otherwise be required to be recov-  
10      ered from ratepayers.

11   **“SEC. 372. DEFINITIONS.**

12       “For purposes of this Part:

13           “(1) The term ‘Secretary’ means the Secretary  
14       of Energy, in consultation with the Federal Energy  
15       Regulatory Commission.

16           “(2) The term ‘waste energy’ means\_\_

17               “(A) exhaust heat and flared gases from  
18               any industrial process;

19               “(B) waste gas or industrial tail gas that  
20               would otherwise be flared, incinerated or vent-  
21               ed;

22               “(C) a pressure drop in any gas, excluding  
23               any pressure drop to a condenser that subse-  
24               quently vents the resulting heat; and

1           “(D) such other forms of waste energy as  
2           the Secretary may identify.

3           “(3) The term ‘recoverable waste energy’ means  
4           waste energy from which electricity or useful ther-  
5           mal energy may be recovered through modification  
6           of existing facilities or addition of new facilities.

7           “(4) The term ‘net excess power’ means, for  
8           any facility, recoverable waste energy recovered in  
9           the form of electricity in amounts exceeding the total  
10          consumption of electricity at the specific time of gen-  
11          eration on the site where the facility is located.

12          “(5) The term ‘useful thermal energy’ is energy  
13          in the forms of direct heat, steam, hot water, or  
14          other thermal forms that is used in production and  
15          beneficial measures for heating, cooling, humidity  
16          control, process use, or other valid thermal end-use  
17          energy requirements, and for which fuel or elec-  
18          tricity would otherwise be consumed.

19          “(6) The term ‘combined heat and power sys-  
20          tem’ means a facility—

21                 “(A) that simultaneously and efficiently  
22                 produces useful thermal energy and electricity;  
23                 and

24                 “(B) that recovers not less than 60 percent  
25                 of the energy value in the fuel (on a lower-heat-

1           ing-value basis) in the form of useful thermal  
2           energy and electricity.

3           “(7) The terms ‘electric utility’, ‘State regu-  
4       lated electric utility’, ‘nonregulated electric utility’  
5       and other terms used in this Part have the same  
6       meanings as when such terms are used in title I of  
7       the Public Utility Regulatory Policies Act of 1978  
8       (relating to retail regulatory policies for electric utili-  
9       ties).

10   **“SEC. 373. SURVEY AND REGISTRY.**

11       “(a) RECOVERABLE WASTE-ENERGY INVENTORY  
12   PROGRAM.—The Secretary, in cooperation with State en-  
13   ergy offices, shall establish a Recoverable Waste-Energy  
14   Inventory Program. The program shall include an ongoing  
15   survey of all major industrial and large commercial com-  
16   bustion sources in the United States and the sites where  
17   these are located, together with a review of each for quan-  
18   tity and quality of waste energy.

19       “(b) CRITERIA.—The Secretary shall, within 120  
20   days after the enactment of this section, develop and pub-  
21   lish proposed criteria subject to notice and comment, and  
22   within 270 days of enactment, establish final criteria, to  
23   identify and designate those sources and sites in the inven-  
24   tory under subsection (a) where recoverable waste energy  
25   projects or combined heat and power system projects may

1 have economic feasibility with a payback of invested costs  
2 within 5 years or less from the date of first full project  
3 operation (including incentives offered under this Part).  
4 Such criteria will include standards that insure that  
5 projects proposed for inclusion in the Registry are not de-  
6 veloped for the primary purpose of making sales of excess  
7 electric power under the regulatory treatment provided  
8 under this Part.

9 “(c) TECHNICAL SUPPORT.—The Secretary shall  
10 provide to owners or operators of combustion sources tech-  
11 nical support and offer partial funding (up to one-half of  
12 total costs) for feasibility studies to confirm whether or  
13 not investment in recovery of waste energy or combined  
14 heat and power at that source would offer a payback pe-  
15 riod of 5 years or less.

16 “(d) REGISTRY.—(1) The Secretary shall, within one  
17 year after the enactment of this section, establish a Reg-  
18 istry of Recoverable Waste-energy Sources, and sites on  
19 which those sources are located, which meet the criteria  
20 set forth under subsection (b). The Secretary shall update  
21 the Registry on not less than a monthly basis, and make  
22 the Registry accessible to the public on the Environmental  
23 Protection Agency web site. Any State or electric utility  
24 may contest the listing of any source or site by submitting  
25 a petition to the Secretary.

1       “(2) The Secretary shall register and include on the  
2 Registry all sites meeting the criteria of subsection (b).  
3 The Secretary shall calculate the total amounts of poten-  
4 tially recoverable waste energy from sources at such sites,  
5 nationally and by State, and shall make such totals public,  
6 together with information on the air pollutant and green-  
7 house gas emissions savings that might be achieved with  
8 recovery of the waste energy from all sources and sites  
9 listed in the Registry.

10       “(3) The Secretary shall notify owners or operators  
11 of Recoverable Waste-Energy Sources and sites listed in  
12 the Registry prior to publishing the listing. The owner or  
13 operator of sources at such sites may elect to have detailed  
14 quantitative information concerning that site not made  
15 public by notifying the Secretary of that election. Informa-  
16 tion concerning that site shall be included in State totals  
17 unless there are fewer than 3 sites in the State.

18       “(4) As waste energy projects achieve successful re-  
19 covery of waste energy, the Secretary shall remove the re-  
20 lated sites or sources from the Registry, and shall des-  
21 ignate the removed projects as eligible for the incentive  
22 provisions provided under this Part and the regulatory  
23 treatment required by this Part. No project shall be re-  
24 moved from the Registry without the consent of the owner  
25 or operator of the project if the owner or operator has

1 submitted a petition under section 375 and such petition  
2 has not been acted upon or denied.

3 “(5) The Secretary shall not list any source con-  
4 structed after the date of the enactment of this Part on  
5 the Registry if the Secretary determines that such  
6 source—

7 “(A) was developed for the primary purpose of  
8 making sales of excess electric power under the reg-  
9 ulatory treatment provided under this Part; or

10 “(B) does not capture at least 60 percent of the  
11 total energy value of the fuels used (on a lower-heat-  
12 ing-value basis) in the form of useful thermal en-  
13 ergy, electricity, mechanical energy, chemical output,  
14 or some combination of them.

15 “(e) SELF-CERTIFICATION.—Owners, operators, or  
16 third-party developers of industrial waste-energy projects  
17 that qualify under standards established by the Secretary  
18 may self-certify their sites or sources to the Secretary for  
19 inclusion in the Registry, subject to procedures adopted  
20 by the Secretary. To prevent a fraudulent listing, the  
21 sources shall be included on the Registry only if the Sec-  
22 retary confirms the submitted data, at the Secretary’s dis-  
23 cretion.

24 “(f) NEW FACILITIES.—As a new energy-consuming  
25 industrial facility is developed after the enactment of this



1 Part, to the extent it may constitute a site with recover-  
2 able waste energy that may qualify for the Registry, the  
3 Secretary may elect to include it in the Registry at the  
4 request of its owner or operator or developer on a condi-  
5 tional basis, removing the site if its development ceases  
6 or it if fails to qualify for listing under this Part.

7 “(g) OPTIMUM MEANS OF RECOVERY.—For each site  
8 listed in the Registry, at the request of the owner or oper-  
9 ator of the site, the Secretary shall offer, in cooperation  
10 with Clean Energy Application Centers operated by the  
11 Secretary of Energy, suggestions of optimum means of re-  
12 covery of value from waste energy stream in the form of  
13 electricity, useful thermal energy, or other energy-related  
14 products.

15 “(h) REVISION.—Each annual State report under  
16 section 548(a) of the National Energy Conservation Policy  
17 Act shall include the results of the survey for that State  
18 under this section.

19 “(i) AUTHORIZATION.—There are authorized to be  
20 appropriated to the Secretary for the purposes of creating  
21 and maintaining the Registry and services authorized by  
22 this section not more than \$1,000,000 for each of fiscal  
23 years 2008, 2009, 2010, 2010, and 2012 and not more  
24 than \$5,000,000 to the States to provide funding for State  
25 energy office functions under this section.

1   **“SEC. 374. ADDITIONAL INCENTIVES FOR RECOVERY, UTILI-**  
2                           **ZATION AND PREVENTION OF INDUSTRIAL**  
3                           **WASTE ENERGY.**

4       “(a) CONSIDERATION OF STANDARD.—Not later  
5 than 180 days after the receipt by a State regulatory au-  
6 thority (with respect to each electric utility for which it  
7 has ratemaking authority), or nonregulated electric utility,  
8 of a request from a project sponsor or owner or operator,  
9 the State regulatory authority or nonregulated electric  
10 utility shall provide public notice and conduct a hearing  
11 respecting the standard established by subsection (b) and,  
12 on the basis of such hearing, shall consider and make a  
13 determination whether or not it is appropriate to imple-  
14 ment such standard to carry out the purposes of this Part.  
15 For purposes of any such determination and any review  
16 of such determination in any court the purposes of this  
17 section supplement otherwise applicable State law. Noth-  
18 ing in this Part prohibits any State regulatory authority  
19 or nonregulated electric utility from making any deter-  
20 mination that it is not appropriate to adopt any such  
21 standard, pursuant to its authority under otherwise appli-  
22 cable State law.

23       “(b) STANDARD FOR SALES OF EXCESS POWER.—  
24 For purposes of this section, the standard referred to in  
25 subsection (a) shall provide that an owner or operator of  
26 a waste energy recovery project identified on the Registry

1 who generates net excess power shall be eligible to benefit  
2 from at least one of the options described in subsection  
3 (c) for disposal of the net excess power in accordance with  
4 the rate conditions and limitations described in subsection  
5 (d).

6 “(c) OPTIONS.—The options referred to in subsection  
7 (b) are as follows:

8 “(1) SALE OF NET EXCESS POWER TO UTIL-  
9 ITY.—The electric utility shall purchase the net ex-  
10 cess power from the owner or operator of the eligible  
11 waste-energy recovery project during the operation  
12 of the project under a contract entered into for that  
13 purpose.

14 “(2) TRANSPORT BY UTILITY FOR DIRECT SALE  
15 TO THIRD PARTY.—The electric utility shall transmit  
16 the net excess power on behalf of the project owner  
17 or operator to up to three separate locations on that  
18 utility’s system for direct sale by that owner or oper-  
19 ator to third parties at such locations.

20 “(3) TRANSPORT OVER PRIVATE TRANSMISSION  
21 LINES.—The State and the electric utility shall per-  
22 mit, and shall waive or modify such laws as would  
23 otherwise prohibit, the construction and operation of  
24 private electric wires constructed, owned and oper-  
25 ated by the project owner or operator, to transport

1 such power to up to 3 purchasers within a 3-mile ra-  
2 dius of the project, allowing such wires to utilize or  
3 cross public rights-of-way, without subjecting the  
4 project to regulation as a public utility, and accord-  
5 ing such wires the same treatment for safety, zon-  
6 ing, land-use and other legal privileges as apply or  
7 would apply to the utility's own wires, except that —

8 “(A) there shall be no grant of any power  
9 of eminent domain to take or cross private  
10 property for such wires, and

11 “(B) such wires shall be physically seg-  
12 regated and not interconnected with any portion  
13 of the utility's system, except on the customer's  
14 side of the utility's revenue meter and in a  
15 manner that precludes any possible export of  
16 such electricity onto the utility system, or dis-  
17 ruption of such system.

18 “(4) AGREED UPON ALTERNATIVES.—The util-  
19 ity and the owner or operator of the project may  
20 reach agreement on any alternate arrangement and  
21 its associated payments or rates that is mutually  
22 satisfactory and in accord with State law.

23 “(d) RATE CONDITIONS AND CRITERIA.—

24 “(1) IN GENERAL.—The options described in  
25 paragraphs (1) and (2) in subsection (c) shall be of-

1       ferred under purchase and transport rate conditions  
2       reflecting the rate components defined under para-  
3       graph (2) of this subsection as applicable under the  
4       circumstances described in paragraph (3) of this  
5       subsection.

6               “(2) RATE COMPONENTS.—For purposes of this  
7       section:

8               “(A) PER UNIT DISTRIBUTION COSTS.—  
9       The term ‘per unit distribution costs’ means the  
10      utility’s depreciated book-value distribution sys-  
11      tem costs divided by the previous year’s volume  
12      of utility electricity sales or transmission at the  
13      distribution level in kilowatt hours.

14              “(B) PER UNIT DISTRIBUTION MARGIN.—  
15      The term ‘per unit distribution margin’ means:

16              “(i) In the case of a State regulated  
17      electric utility, a per-unit gross pretax  
18      profit determined by multiplying the util-  
19      ity’s State-approved percentage rate of re-  
20      turn for distribution system assets by the  
21      per unit distribution costs.

22              “(ii) In the case of an nonregulated  
23      utility, a per unit contribution to net reve-  
24      nues determined by dividing the amount of  
25      any net revenue payment or contribution

1 to the nonregulated utility's owners or sub-  
2 scribers in the prior year by the utility's  
3 gross revenues for the prior year to obtain  
4 a percentage (but not less than 10 percent)  
5 and multiplying that percentage by the per  
6 unit distribution costs.

7 “(C) PER UNIT TRANSMISSION COSTS.—

8 The term ‘per unit transmission costs’ means  
9 the total cost of those transmission services  
10 purchased or provided by a utility on a per-kilo-  
11 watt-hour basis as included in that utility's re-  
12 tail rate.

13 “(3) APPLICABLE RATES.—

14 “(A) RATES APPLICABLE TO SALE OF NET  
15 EXCESS POWER.—Sales made by a project  
16 owner or operator under the option described in  
17 subsection (c) (1) shall be paid for on a per kil-  
18 owatt hour basis that shall equal the full  
19 undiscounted retail rate paid to the utility for  
20 power purchased by such a facility *minus* per  
21 unit distribution costs, as applicable to the type  
22 of utility purchasing the power. If the net ex-  
23 cess power is made available for purchase at  
24 voltages that must be transformed to or from  
25 voltages exceeding 25 kilovolts to be available

1           for resale by the utility, then the purchase price  
2           shall further be reduced by per unit trans-  
3           mission costs.

4                   “(B) RATES APPLICABLE TO TRANSPORT  
5           BY UTILITY FOR DIRECT SALE TO THIRD PAR-  
6           TIES.—Transportation by utilities of power on  
7           behalf of the owner or operator of a project  
8           under the option described in subsection (c)(2)  
9           shall incur a transportation rate equal to the  
10          per unit distribution costs and per unit dis-  
11          tribution margin, as applicable to the type of  
12          utility transporting the power. If the net excess  
13          power is made available for transportation at  
14          voltages that must be transformed to or from  
15          voltages exceeding 25 kilovolts to be trans-  
16          ported to the designated third-party purchasers,  
17          then the transport rate shall further be in-  
18          creased by per unit transmission costs. In  
19          States with competitive retail markets for elec-  
20          tricity, the applicable transportation rate for  
21          similar transportation shall be applied in lieu of  
22          any rate calculated under this paragraph.

23                   “(4) LIMITATIONS.—(A) Any rate established  
24          for sale or transportation under this section shall be  
25          modified over time with changes in the electric util-

1       ity's underlying costs or rates, and shall reflect the  
2       same time-sensitivity and billing periods as are es-  
3       tablished in the retail sales or transportation rates  
4       offered by the utility.

5           “(B) No utility shall be required to purchase or  
6       transport an amount of net excess power under this  
7       section that exceeds the available capacity of the  
8       wires, meter, or other equipment of the electric util-  
9       ity serving the site unless the owner or operator of  
10      the project agrees to pay necessary and reasonable  
11      upgrade costs.

12      “(e) PROCEDURAL REQUIREMENTS FOR CONSIDER-  
13      ATION AND DETERMINATION.—(1) The consideration re-  
14      ferred to in subsection (b) shall be made after public no-  
15      tice and hearing. The determination referred to in sub-  
16      section (b) shall be—

17           “(A) in writing,

18           “(B) based upon findings included in such de-  
19      termination and upon the evidence presented at the  
20      hearing, and

21           “(C) available to the public.

22      “(2) The Secretary may intervene as a matter of  
23      right in a proceeding conducted under this section and  
24      may calculate the energy and emissions likely to be saved  
25      by electing to adopt one or more of the options, as well



1 as the costs and benefits to ratepayers and the utility and  
2 to advocate for the waste-energy recovery opportunity.

3 “(3) Except as otherwise provided in paragraph (1),  
4 and paragraph (2), the procedures for the consideration  
5 and determination referred to in subsection (a) shall be  
6 those established by the State regulatory authority or the  
7 nonregulated electric utility. In the instance that there is  
8 more than one project seeking such consideration simulta-  
9 neously in connection with the same utility, such pro-  
10 ceeding may encompass all such projects, provided that  
11 full attention is paid to their individual circumstances and  
12 merits, and an individual judgment is reached with respect  
13 to each project.

14 “(f) IMPLEMENTATION.—(1) The State regulatory  
15 authority (with respect to each electric utility for which  
16 it has ratemaking authority) or nonregulated electric util-  
17 ity may, to the extent consistent with otherwise applicable  
18 State law—

19 “(A) implement the standard determined under  
20 this section, or

21 “(B) decline to implement any such standard.

22 “(2) If a State regulatory authority (with respect to  
23 each electric utility for which it has ratemaking authority)  
24 or nonregulated electric utility declines to implement any  
25 standard established by this section, such authority or

1 nonregulated electric utility shall state in writing the rea-  
2 sons therefor. Such statement of reasons shall be available  
3 to the public, and the Secretary shall include the project  
4 in an annual report to Congress concerning lost opportuni-  
5 ties for waste-heat recovery, specifically identifying the  
6 utility and stating the amount of lost energy and emissions  
7 savings calculated. If a State regulatory authority (with  
8 respect to each electric utility for which it has ratemaking  
9 authority) or nonregulated electric utility declines to im-  
10 plement the standard established by this section, the  
11 project sponsor may submit a new petition under this sec-  
12 tion with respect to such project at any time after 24  
13 months after the date on which the State regulatory au-  
14 thority or nonregulated utility has declined to implement  
15 such standard.

16 **“SEC. 375. CLEAN ENERGY APPLICATION CENTERS.**

17       “(a) PURPOSE.—The purpose of this section is to re-  
18 name and provide for the continued operation of the  
19 United States Department of Energy’s Regional Com-  
20 bined Heat and Power (CHP) Application Centers.

21       “(b) FINDINGS.—The Congress finds the Depart-  
22 ment of Energy’s Regional Combined Heat and Power  
23 (CHP) Application Centers program has produced signifi-  
24 cant energy savings and climate change benefits and will  
25 continue to do so through the deployment of clean energy

1 technologies such as Combined Heat and Power (CHP),  
2 recycled waste energy and biomass energy systems, in the  
3 industrial and commercial energy markets.

4 “(c) RENAMING.—The Combined Heat and Power  
5 Application Centers at the Department of Energy are  
6 hereby be redesignated as Clean Energy Application Cen-  
7 ters. Any reference in any law, rule or regulation or publi-  
8 cation to the Combined Heat and Power Application Cen-  
9 ters shall be treated as a reference to the Clean Energy  
10 Application Centers.

11 “(d) RELOCATION.—In order to better coordinate ef-  
12 forts with the separate Industrial Assessment Centers and  
13 to assure that the energy efficiency and, when applicable,  
14 the renewable nature of deploying mature clean energy  
15 technology is fully accounted for, the Secretary of Energy  
16 shall relocate the administration of the Clean Energy Ap-  
17 plication Centers to the Office of Energy Efficiency and  
18 Renewable Energy within the Department of Energy. The  
19 Office of Electricity Delivery and Energy Reliability shall  
20 continue to perform work on the role of such technology  
21 in support of the grid and its reliability and security, and  
22 shall assist the Clean Energy Application Centers in their  
23 work with regard to the grid and with electric utilities.

24 “(e) GRANTS.—

1           “(1) IN GENERAL.—The Secretary of Energy  
2           shall make grants to universities, research centers,  
3           and other appropriate institutions to assure the con-  
4           tinued operations and effectiveness of 8 Regional  
5           Clean Energy Application Centers in each of the fol-  
6           lowing regions (as designated for such purposes as  
7           of the date of the enactment of this section):

8                   “(A) Gulf Coast.

9                   “(B) Intermountain.

10                  “(C) Mid-Atlantic.

11                  “(D) Midwest.

12                  “(E) Northeast.

13                  “(F) Northwest.

14                  “(G) Pacific.

15                  “(H) Southeast.

16           “(2) ESTABLISHMENT OF GOALS AND COMPLI-  
17           ANCE.—In making grants under this section, the  
18           Secretary shall ensure that sufficient goals are es-  
19           tablished and met by each Center throughout the  
20           program duration concerning outreach and tech-  
21           nology deployment.

22           “(f) ACTIVITIES.—Each Clean Energy Application  
23           Center shall operate a program to encourage deployment  
24           of clean energy technologies through education and out-  
25           reach to building and industrial professionals, and to other

1 individuals and organizations with an interest in efficient  
2 energy use. In addition, the Centers shall provide project  
3 specific support to building and industrial professionals  
4 through assessments and advisory activities. Funds made  
5 available under this section may be used for the following  
6 activities:

7           “(1) Developing and distributing informational  
8 materials on clean energy technologies, including  
9 continuation of the eight existing Web sites.

10           “(2) Developing and conducting target market  
11 workshops, seminars, internet programs and other  
12 activities to educate end users, regulators, and  
13 stakeholders in a manner that leads to the deploy-  
14 ment of clean energy technologies.

15           “(3) Providing or coordinating onsite assess-  
16 ments for sites and enterprises that may consider  
17 deployment of clean energy technology.

18           “(4) Performing market research to identify  
19 high profile candidates for clean energy deployment.

20           “(5) Providing consulting support to sites con-  
21 sidering deployment of clean energy technologies.

22           “(6) Assisting organizations developing clean  
23 energy technologies to overcome barriers to deploy-  
24 ment.

“(7) Assisting companies and organizations with performance evaluations of any clean energy technology implemented.

“(g) DURATION.—A grant awarded under this section shall be for a period of 5 years. each grant shall be evaluated annually for its continuation based on its activities and results.

8       “(h) AUTHORIZATION.—There is authorized to be ap-  
9       propriated for purposes of this section the sum of  
10      \$10,000,000 for each of fiscal years 2008, 2009, 2010,  
11      2011, and 2012.”.

(b) TABLE OF CONTENTS.—The table of contents for such Act is amended by inserting the following after the items relating to part D of title III:

“Sec. 371. Survey of waste industrial energy recovery and potential use.

“Sec. 372. Definitions.

“Sec. 373. Survey and registry.

“Sec. 374. Additional incentives for recovery, utilization and prevention of industrial waste energy.

“Sec. 375. Clean Energy Application Centers.”.

15       **PART 6—ENERGY EFFICIENCY OF PUBLIC**  
16                   **INSTITUTIONS**

**17 SEC. 1071. DEFINITIONS.**

18 For purposes of this part—

(1) the term “CHP” means combined heat and power, or the generation of electric energy and heat in a single, integrated system;

1           (2) the term “institutional entities” means local  
2       governments, public school districts, municipal utili-  
3       ties, State governments, Federal agencies, and other  
4       entities established by local, State, or Federal agen-  
5       cies to meet public purposes, and public or private  
6       colleges, universities, airports, and hospitals;

7           (3) the term “renewable thermal energy  
8       sources” means non-fossil-fuel energy sources, in-  
9       cluding biomass, geothermal, solar, natural sources  
10      of cooling such as cold lake or ocean water, and  
11      other sources that can provide heating or cooling en-  
12      ergy;

13          (4) the term “sustainable energy infrastruc-  
14      ture” means facilities for production of energy from  
15      CHP or renewable thermal energy sources and dis-  
16      tribution of thermal energy to users; and

17          (5) the term “thermal energy” means heating  
18      or cooling energy in the form of hot water or steam  
19      (heating energy) or chilled water (cooling energy).

20   **SEC. 1072. TECHNICAL ASSISTANCE PROGRAM.**

21      (a) ESTABLISHMENT.—The Secretary of Energy  
22      shall, with funds appropriated for this purpose, implement  
23      a program of information dissemination and technical as-  
24      sistance to institutional entities to assist them in identi-

1   fying, evaluating, designing, and implementing sustainable  
2   energy infrastructure.

3       (b) INFORMATION DISSEMINATION.—The Secretary  
4   shall develop and disseminate information and assessment  
5   tools addressing—

6           (1) identification of opportunities for sustain-  
7       able energy infrastructure;

8           (2) technical and economic characteristics of  
9       sustainable energy infrastructure;

10          (3) utility interconnection, and negotiation of  
11       power and fuel contracts;

12          (4) financing alternatives;

13          (5) permitting and siting issues;

14          (6) case studies of successful sustainable energy  
15       infrastructure systems; and

16          (7) computer software for assessment, design,  
17       and operation and maintenance of sustainable en-  
18       ergy infrastructure systems.

19       (c) ELIGIBLE COSTS.—Upon application by an insti-  
20   tutional entity, the Secretary may make grants to such  
21   applicant to fund—

22           (1) 75 percent of the cost of feasibility studies  
23       to assess the potential for implementation or im-  
24       provement of sustainable energy infrastructure;



1           (2) 60 percent of the cost of guidance on over-  
2       coming barriers to project implementation, including  
3       financial, contracting, siting, and permitting bar-  
4       riers; and

5           (3) 45 percent of the cost of detailed engineer-  
6       ing and design of sustainable energy infrastructure.

7       (d) AUTHORIZATION OF APPROPRIATIONS.—There  
8       are authorized to be appropriated to carry out this section  
9       \$15,000,000 for fiscal year 2008, \$15,000,000 for fiscal  
10      year 2009, and \$15,000,000 for fiscal year 2010.

11   **SEC. 1073. REVOLVING FUND.**

12      (a) ESTABLISHMENT.—The Secretary of Energy  
13      shall, with funds appropriated for this purpose, create a  
14      Sustainable Institutions Revolving Fund for the purpose  
15      of establishing and operating a Sustainable Institutions  
16      Revolving Fund (in this section referred to as the  
17      “SIRF”) for the purpose of providing loans for the con-  
18      struction or improvement of sustainable energy infrastruc-  
19      ture to serve institutional entities.

20      (b) ELIGIBLE COSTS.—A loan provided from the  
21      SIRF shall be for no more than 70 percent of the total  
22      capital costs of a project, and shall not exceed  
23      \$15,000,000. Such loans shall be for constructing sustain-  
24      able energy infrastructure, including—

1           (1) plant facilities used for producing thermal  
2           energy, electricity, or both;

3           (2) facilities for storing thermal energy;

4           (3) facilities for distribution of thermal energy;

5           and

6           (4) costs for converting buildings to use ther-  
7           mal energy from sustainable energy sources.

8           (c) QUALIFICATIONS.—Loans from the SIRF' may be  
9           made to institutional entities for projects meeting the  
10          qualifications and conditions established by the Secretary,  
11          including the following minimum qualifications:

12          (1) The project shall be technically and eco-  
13          nomically feasible as determined by a detailed feasi-  
14          bility analysis performed or corroborated by an inde-  
15          pendent consultant.

16          (2) The borrower shall demonstrate that ade-  
17          quate and comparable financing was not found to be  
18          reasonably available from other sources, and that  
19          the project is economically more feasible with the  
20          availability of the SIRF' loan.

21          (3) The borrower shall obtain commitments for  
22          the remaining capital required to implement the  
23          project, contingent on approval of the SIRF' loan.

24          (4) The borrower shall provide to the Secretary  
25          reasonable assurance that all laborers and mechanics

1       employed by contractors or subcontractors in the  
2       performance of construction work financed in whole  
3       or in part with a loan provided under this section  
4       will be paid wages at rates not less than those pre-  
5       vailing on similar work in the locality as determined  
6       by the Secretary of Labor in accordance with sub-  
7       chapter IV of chapter 31 of title 40, United States  
8       Code (commonly referred to as the Davis-Bacon  
9       Act).

10       (d) FINANCING TERMS.—(1) Interest on a loan under  
11       this section may be a fixed rate or floating rate, and shall  
12       be equal to the Federal cost of funds consistent with the  
13       loan type and term, minus 1.5 percent.

14       (2) Interest shall accrue from the date of the loan,  
15       but the first payment of interest shall be deferred, if de-  
16       sired by the borrower, for a period ending not later than  
17       3 years after the initial date of operation of the system.

18       (3) Interest attributable to the period of deferred  
19       payment shall be amortized over the remainder of the loan  
20       term.

21       (4) Principal shall be repaid on a schedule established  
22       at the time the loan is made. Such payments shall begin  
23       not later than 3 years after the initial date of operation  
24       of the system.

1       (5) Loans made from the SIRF shall be repayable  
2 over a period ending not more than 20 years after the  
3 date the loan is made.

4       (6) Loans shall be prepayable at any time without  
5 penalty.

6       (7) SIRF loans shall be subordinate to other loans  
7 for the project.

8       (e) FUNDING CYCLES.—Applications for loans from  
9 the SIRF shall be received on a periodic basis at least  
10 semiannually.

11       (f) APPLICATION OF REPAYMENTS FOR DEFICIT RE-  
12 Duction.—Loans from the SIRF shall be made, with  
13 funds available for this purpose, during the 10 years start-  
14 ing from the date that the first loan from the fund is  
15 made. Until this 10-year period ends, funds repaid by bor-  
16 rowers shall be deposited in the SIRF to be made available  
17 for additional loans. Once loans from the SIRF are no  
18 longer being made, repayments shall go directly into the  
19 United States Treasury.

20       (g) PRIORITIES.—In evaluating projects for funding,  
21 priority shall be given to projects which—

22               (1) maximize energy efficiency;

23               (2) minimize environmental impacts, including  
24 from regulated air pollutants, greenhouse gas emis-

1       sions, and the use of refrigerants known to cause  
2       ozone depletion;

3           (3) use renewable energy resources;

4           (4) maximize oil displacement; and

5           (5) benefit economically-depressed areas.

6       (h) REGULATIONS.—Not later than one year after  
7       the date of enactment of this Act, the Secretary of Energy  
8       shall develop a plan and adopt rules and procedures for  
9       establishing and operating the SIRF.

10       (i) PROGRAM REVIEW.—Every two years the Sec-  
11       retary shall report to the Congress on the status and  
12       progress of the SIRF.

13       (j) AUTHORIZATION OF APPROPRIATIONS.—There  
14       are authorized to be appropriated to carry out this section  
15       \$250,000,000 for fiscal year 2008 and \$500,000,000 for  
16       each of the fiscal years 2009 through 2012.

17       **SEC. 1074. REAUTHORIZATION OF STATE ENERGY PRO-**  
18                               **GRAMS.**

19       Section 365(f) of the Energy Policy and Conservation  
20       Act (42 U.S.C. 6325(f)) is amended by striking  
21       “\$100,000,000 for each of the fiscal years 2006 and 2007  
22       and \$125,000,000 for fiscal year 2008” and inserting  
23       “\$125,000,000 for each of the fiscal years 2007, 2008,  
24       2009, 2010, 2011, and 2012”.

1           **Subtitle B—Smart Grid and**  
2                   **Demand Response**

3   **SEC. 1101. STATEMENT OF POLICY ON MODERNIZATION OF**  
4                   **ELECTRICITY GRID.**

5           (a) SMART GRID CHARACTERISTICS.—It is the policy  
6 of the United States to support the modernization of the  
7 Nation’s electricity transmission and distribution system  
8 to incorporate digital information and controls technology  
9 and to share real-time pricing information with electricity  
10 customers to achieve each of the following, which together  
11 characterize a smart grid:

12               (1) Increased reliability, security and efficiency  
13 of the electric grid.

14               (2) Dynamic optimization of grid operations  
15 and resources, with full cyber-security.

16               (3) Deployment and integration of distributed  
17 resources and generation.

18               (4) Development and incorporation of demand  
19 response demand-side resources, and energy effi-  
20 ciency resources.

21               (5) Deployment of “smart” technologies for me-  
22 tering, communications concerning grid operations  
23 and status, and distribution automation.

24               (6) Integration of “smart” appliances and con-  
25 sumer devices.

1           (7) Deployment and integration of renewable  
2           energy resources, both to the grid and on the cus-  
3           tomer side of the electric meter.

4           (8) Deployment and integration of advanced  
5           electricity storage and peak-sharing technologies, in-  
6           cluding plug-in electric and hybrid electric vehicles,  
7           and thermal-storage air conditioning.

8           (9) Provision to consumers of new information  
9           and control options.

10          (10) Continual environmental improvement in  
11          electricity production and distribution.

12          (11) Enhanced capacity and efficiency of elec-  
13          tricity networks, reduction of line losses, and main-  
14          tenance of power quality.

15          (b) SUPPORT.—The Secretary of Energy and the  
16          Federal Energy Regulatory Commission and other Federal  
17          agencies as appropriate shall undertake programs to sup-  
18          port the development and demonstration of Smart Grid  
19          technologies and standards to maximize the achievement  
20          of these goals.

21          (c) BARRIERS.—It is further the policy of the United  
22          States that no State, State agency, or local government  
23          or instrumentality thereof should prohibit, or erect unrea-  
24          sonable barriers to, the deployment of smart grid tech-  
25          nologies on an electric utility's distribution facilities, or

1 unreasonably limit the services that may be provided using  
2 such technologies.

3 (d) INFORMATION.—It is further the policy of the  
4 United States that electricity purchasers are entitled to  
5 receive information about the varying value of electricity  
6 at different times and places, and that States shall not  
7 prohibit nor erect unreasonable barriers to the provision  
8 of such information flows to end users.

9 **SEC. 1102. GRID ASSESSMENT AND REPORT.**

10 (a) IN GENERAL.—The Secretary of Energy, in con-  
11 sultation with the Federal Energy Regulatory Commission  
12 shall undertake, and update on a biannual basis, an as-  
13 sessment of the progress toward modernizing the electric  
14 system from generation to ultimate electricity consump-  
15 tion, including implementation of “smart grid” tech-  
16 nologies. The Secretary of Energy, in consultation with  
17 the Federal Energy Regulatory Commission shall prepare  
18 this assessment with input from stakeholders including  
19 but not limited to electric utilities, other Federal offices,  
20 States, companies involved in developing related tech-  
21 nologies, the National Electric Reliability Organization  
22 recognized by the Federal Energy Regulatory Commission,  
23 electricity customers, and persons with special related ex-  
24 pertise. The assessment shall include each of the following:



1           (1) An updated inventory of existing smart grid  
2       systems.

3           (2) A description of the condition of existing  
4       grid infrastructure and procedures for determining  
5       the need for new infrastructure;

6           (3) A description of any plans of States, utili-  
7       ties, or others to introduce smart grid systems and  
8       technologies.

9           (4) An assessment of constraints to deployment  
10      of smart grid technology and most important oppor-  
11      tunities for doing so, including the readiness or lack  
12      thereof of enabling technologies.

13          (5) An assessment of remaining potential bene-  
14      fits resulting from introduction of smart grid sys-  
15      tems, including benefits related to demand-side effi-  
16      ciencies, improved reliability, improved security, re-  
17      duced prices, and improved integration of renewable  
18      resources.

19          (6) Recommendations for legislative or regu-  
20      latory changes to remove barriers to and create in-  
21      centives for smart grid system implementation and  
22      to meet the policy goals of this part.

23          (7) An estimate of the potential costs required  
24      for modernization of the electricity grid, with speci-  
25      ficity relative to geographic areas and components of

1 the grid, together with an assessment of whether the  
2 necessary funds would be available to meet such  
3 costs, and the sources of such funds.

4 (8) An assessment of ancillary benefits to other  
5 economic sectors or activities beyond the electricity  
6 sector, such as potential broadband service over  
7 power lines.

8 (9) An assessment of technologies, activities or  
9 opportunities in energy end use devices, customer  
10 premises, buildings, and power generation and stor-  
11 age devices that could accelerate or expand the im-  
12 pact and effectiveness of smart grid advances.

13 (10) An assessment of potential risks to per-  
14 sonal privacy, corporate confidentiality, and grid se-  
15 curity from the spread of smart grid technologies,  
16 and if so what additional measures and policies are  
17 needed to assure privacy and information protection  
18 for electric customers and grid partners, and cyber-  
19 security protection for extended grid systems.

20 (11) An assessment of the readiness of market  
21 forces to drive further implementation and evolution  
22 of “smart grid” technologies in the absence of gov-  
23 ernment leadership.

1           (12) Recommendations to the Congress and  
2           other Federal officers on actions they should take to  
3           assist.

4   The Secretary of Energy, in consultation with the Federal  
5   Energy Regulatory Commission may request electric utili-  
6   ties to provide information relating to deployment and  
7   planned deployment of smart grid systems and tech-  
8   nologies. At the request of the utility, the Secretary of En-  
9   ergy, in consultation with the Federal Energy Regulatory  
10   Commission shall maintain the confidentiality of utility-  
11   specific or specific security-related information. The Sec-  
12   retary of Energy, in consultation with the Federal Energy  
13   Regulatory Commission shall provide opportunities for  
14   input and comment by interested persons, including rep-  
15   resentatives of electricity consumers, Smart Grid tech-  
16   nology service providers, the electric utility industry, and  
17   State and local government.

18       (b) STATE AND REGIONAL ASSESSMENT AND RE-  
19   PORT.—States or groups of States are encouraged to par-  
20   ticipate in the development of State or region-specific com-  
21   ponents of the assessment and report under subsection  
22   (a). Such State-specific components may address the as-  
23   sessment and reporting criteria above but also may include  
24   but not be limited to any of the following:

1           (1) Assessment of types of security threats to  
2       electricity delivery.

3           (2) Energy assurance and response plans to ad-  
4       dress security threats.

5           (3) Plans for introduction of smart grid sys-  
6       tems and technologies over 3, 5, and 10 year plan-  
7       ning horizons.

8       The Secretary of Energy, in consultation with the Federal  
9       Energy Regulatory Commission may make grants to  
10      States that begin development of a State or Regional Plan  
11      within 180 days after the enactment of this Act to offset  
12      up to one-half of the costs required to develop such plans.

13       (c) INTEROPERABILITY PROTOCOLS AND MODEL  
14      STANDARDS FOR INFORMATION MANAGEMENT.—

15           (1) IN GENERAL.—The Secretary of Energy, in  
16      consultation with the Federal Energy Regulatory  
17      Commission shall work with Smart Grid stake-  
18      holders to lead towards the earliest feasible develop-  
19      ment of flexible, uniform, and consensus protocols or  
20      model standards for information management among  
21      and interoperability of smart grid devices and sys-  
22      tems. Such protocols and model standards shall  
23      allow such devices to communicate and function over  
24      multiple technologies, including wireless, cable, sat-  
25      ellite, broadband-over-power line, and telephone.

1       Such protocols and model standards should align  
2       policy, business, and technology approaches in a way  
3       that enables all electric resources, including demand  
4       side resources, to contribute to an efficient, reliable  
5       electricity network, on an automated basis, as appropriate.  
6       

7               (2) SCOPE OF PROTOCOLS AND MODEL STAND-  
8       ARDS.—The protocols and model standards shall accommodate centralized and distributed generation,  
9       transmission and distribution resources, including  
10      advanced technologies to improve the efficiency and  
11      reliability of the electric power transmission and distributions system, renewable generation, energy storage,  
12      energy efficiency, and demand response and enabling devices and systems.  
13      

14              (3) ESTABLISHMENT OF WORKING GROUP.—  
15      Not later than 90 days after the date of enactment  
16      of this Act the Secretary of Energy, in consultation  
17      with the Federal Energy Regulatory Commission  
18      shall establish a working group comprised of electric  
19      industry experts to assist in developing the protocols  
20      and model standards described in this subsection  
21      and guide the Federal participation in that process.  
22      Members appointed to the working group shall represent the various sectors of the electricity industry,  
23

1 including sectors relating to the generation, trans-  
2 mission, distribution and end-user.

3 (4) DEVELOPMENT OF PROTOCOLS AND MODEL  
4 STANDARDS.—In developing the protocols and model  
5 standards, the working group shall consult with ex-  
6 pert groups such as the Gridwise Architecture Coun-  
7 cil, the Institute of Electrical and Electronics Engi-  
8 neers, other electric industry groups, customer and  
9 manufacturer groups, and any appropriate Federal  
10 and State agencies. The proposed protocols and  
11 model standards shall be made available in the pub-  
12 lic domain, except to the extent they may allow or  
13 create threats to grid reliability and security.

14 (5) PROPOSAL FOR PROTOCOLS AND MODEL  
15 STANDARDS.—

16 (A) IN GENERAL.—Not later than 1 year  
17 after the date of enactment of this Act, the  
18 working group shall submit to the Secretary of  
19 Energy, in consultation with the Federal En-  
20 ergy Regulatory Commission recommendations  
21 concerning development of proposed protocols  
22 and model standards and recommendations for  
23 Federal support in the implementation of such  
24 protocols and model standards.

1 (B) REVIEW BY THE SECRETARY OF EN-  
2 ERGY, IN CONSULTATION WITH THE FEDERAL  
3 ENERGY REGULATORY COMMISSION.—On re-  
4 ceipt of the recommendations under subpara-  
5 graph (A), the Secretary of Energy, in con-  
6 sultation with the Federal Energy Regulatory  
7 Commission shall take such action as necessary  
8 to encourage the adoption of the protocols and  
9 model standards and their implementation.

10 (C) PUBLICATION OF PROTOCOLS AND  
11 MODEL STANDARDS.—The Secretary of Energy,  
12 in consultation with the Federal Energy Regu-  
13 latory Commission shall publish, not later than  
14 3 years after the date of the enactment of this  
15 Act, and every two years thereafter, a report on  
16 the status of interoperability of smart grid tech-  
17 nologies, and the availability of protocols and  
18 model standards to allow such interoperability.

19 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to carry out the pur-  
21 poses of this section the sum of \$25,000,000 for each of  
22 the fiscal years 2008 through 2012, and such sums as may  
23 be necessary thereafter through fiscal year 2018.

1   **SEC. 1103. FEDERAL MATCHING FUND FOR SMART GRID IN-**  
2                   **VESTMENT COSTS.**

3           (a) **MATCHING FUND.**—The Secretary of Energy  
4 shall establish a Smart Grid Investment Matching Grant  
5 Program to provide reimbursement of one-fourth of quali-  
6 fying Smart Grid investments.

7           (b) **QUALIFYING INVESTMENTS.**—Qualifying Smart  
8 Grid investments may include any of the following made  
9 on or after the date of enactment of this Act:

10               (1) In the case of appliances covered for pur-  
11 poses of establishing energy conservation standards  
12 under part B of title III of the Energy Policy and  
13 Conservation Act of 1975 (42 U.S.C. 6291 and fol-  
14 lowing), the documented expenditures incurred by a  
15 manufacturer of such appliances associated with  
16 purchasing or designing, creating the ability to man-  
17 ufacture, and manufacturing and installing for one  
18 calendar year, internal devices that allow the appli-  
19 ance to engage in Smart Grid functions.

20               (2) In the case of specialized electricity-using  
21 equipment, including motors and drivers, installed in  
22 industrial or commercial applications, the docu-  
23 mented expenditures incurred by its owner or its  
24 manufacturer of installing devices or modifying that  
25 equipment to engage in Smart Grid functions.



1           (3) In the case of transmission and distribution  
2           equipment fitted with monitoring and communica-  
3           tions devices to enable smart grid functions, the doc-  
4           umented expenditures incurred by the electric utility  
5           to purchase and install such monitoring and commu-  
6           nications devices.

7           (4) In the case of metering devices, sensors,  
8           control devices, and other devices integrated with  
9           and attached to an electric utility system that are  
10          capable of engaging in Smart Grid functions, the  
11          documented expenditures incurred by the electric  
12          utility and its customers to purchase and install  
13          such devices.

14          (5) In the case of software that enables devices  
15          or computers to engage in Smart Grid functions, the  
16          documented purchase costs of the software.

17          (6) In the case of entities that operate or co-  
18          ordinate operations of regional electric grids, the  
19          documented expenditures for purchasing and install-  
20          ing such equipment that allows Smart Grid func-  
21          tions to operate and be combined or coordinated  
22          among multiple electric utilities and between that re-  
23          gion and other regions.

24          (7) In the case of persons or entities other than  
25          electric utilities owning and operating a distributed

1 electricity generator, the documented expenditures of  
2 enabling that generator to be monitored, controlled,  
3 or otherwise integrated into grid operations and elec-  
4 tricity flows on the grid utilizing Smart Grid func-  
5 tions.

6 (8) In the case of electric or hybrid-electric ve-  
7 hicles, the documented expenses for devices that  
8 allow the vehicle to engage in Smart Grid functions.

9 (9) The documented expenditures related to  
10 purchasing and implementing Smart Grid functions  
11 in such other cases as the Secretary of Energy shall  
12 identify. In making such grants, the Secretary shall  
13 seek to reward innovation and early adaptation, even  
14 if success is not complete, rather than deployment of  
15 proven and commercially viable technologies.

16 (c) INVESTMENTS NOT INCLUDED.—Qualifying  
17 Smart Grid investments do not include any of the fol-  
18 lowing:

19 (1) Expenditures for electricity generation,  
20 transmission, or distribution infrastructure or equip-  
21 ment not directly related to enabling Smart Grid  
22 functions.

23 (2) After the effective date of a standard under  
24 paragraph (21) of section 111(d) of the Public Util-  
25 ity Regulatory Policies Act of 1978 (relating to

1 Smart Grid information), an investment that is not  
2 in compliance with such standard.

3 (3) After the development and publication by  
4 the Secretary of Energy, in consultation with the  
5 Federal Energy Regulatory Commission of protocols  
6 and model standards for interoperability of smart  
7 grid devices and technologies, an investment that  
8 fails to incorporate any of such protocols or model  
9 standards.

10 (4) Expenditures for physical interconnection of  
11 generators or other devices to the grid except those  
12 that are directly related to enabling Smart Grid  
13 functions.

14 (5) Expenditures for ongoing salaries, benefits,  
15 or personnel costs not incurred in the initial installa-  
16 tion, training, or start up of smart grid functions.

17 (6) Expenditures for travel, lodging, meals or  
18 other personal costs.

19 (7) Ongoing or routine operation, billing, cus-  
20 tomer relations, security, and maintenance expendi-  
21 tures.

22 (8) Such other expenditures that the Secretary  
23 of Energy determines not to be Qualifying Smart  
24 Grid Investments by reason of the lack of the ability

1 to perform smart grid functions or lack of direct re-  
2 lationship to smart grid functions.

3 (d) SMART GRID FUNCTIONS.—The term “smart  
4 grid functions” means any of the following:

5 (1) The ability to develop, store, send and re-  
6 ceive digital information concerning electricity use,  
7 costs, prices, time of use, nature of use, storage, or  
8 other information relevant to device, grid, or utility  
9 operations, to or from or by means of the electric  
10 utility system, through one or a combination of de-  
11 vices and technologies.

12 (2) The ability to develop, store, send and re-  
13 ceive digital information concerning electricity use,  
14 costs, prices, time or use, nature of use, storage, or  
15 other information relevant to device, grid, or utility  
16 operations to or from a computer or other control  
17 device.

18 (3) The ability to measure or monitor electricity  
19 use as a function of time of day, power quality char-  
20 acteristics such as voltage level, current, cycles per  
21 second, or source or type of generation and to store,  
22 synthesize or report that information by digital  
23 means.

24 (4) The ability to sense and localize disruptions  
25 or changes in power flows on the grid and commu-

1        nicate such information instantaneously and auto-  
2        matically for purposes of enabling automatic protec-  
3        tive responses to sustain reliability and security of  
4        grid operations.

5            (5) The ability to detect, prevent, communicate  
6        with regard to, respond to, or recover from system  
7        security threats, including cyber-security threats and  
8        terrorism, using digital information, media, and de-  
9        vices.

10           (6) The ability of any appliance or machine to  
11        respond to such signals, measurements, or commu-  
12        nications automatically or in a manner programmed  
13        by its owner or operator without independent human  
14        intervention.

15           (7) The ability to use digital information to op-  
16        erate functionalities on the electric utility grid that  
17        were previously electro-mechanical or manual.

18           (8) The ability to use digital controls to manage  
19        and modify electricity demand, enable congestion  
20        management, assist in voltage control, provide oper-  
21        ating reserves, and provide frequency regulation.

22           (9) Such other functions as the Secretary of  
23        Energy may identify as being necessary or useful to  
24        the operation of a Smart Grid.

25        (e) OFFICE.—The Secretary of Energy shall—

1           (1) establish an Office to administer the Smart  
2       Grid Investment Grant Program, assuring that ex-  
3       pert resources from the Office of Energy Distribu-  
4       tion and Electricity Reliability, and the Office of En-  
5       ergy Efficiency and Renewable Energy are fully  
6       available to advise on its administration and actions;

7           (2) appoint a Senior Executive Service officer  
8       to direct the Office, together with such personnel as  
9       are required to administer the Smart Grid Invest-  
10      ment Grant program;

11          (3) establish and publish in the Federal Reg-  
12      ister, within 180 days after the enactment of this  
13      Act procedures by which applicants who have made  
14      qualifying Smart Grid investments can seek and ob-  
15      tain reimbursement of one-fourth of their docu-  
16      mented expenditures;

17          (4) establish procedures to assure that there is  
18      no duplication or multiple reimbursement for the  
19      same investment or costs, that the reimbursement  
20      goes to the party making the actual expenditures for  
21      Qualifying Smart Grid Investments, and that the  
22      grants made have significant effect in encouraging  
23      and facilitating the development of a smart grid.;

1           (5) maintain public records of reimbursements  
2       made, recipients, and qualifying Smart Grid invest-  
3       ments which have received reimbursements;

4           (6) establish procedures to provide, in cases  
5       deemed by the Secretary to be warranted, advance  
6       payment of moneys up to the full amount of the pro-  
7       jected eventual reimbursement, to creditworthy ap-  
8       plicants whose ability to make Qualifying Smart  
9       Grid Investments may be hindered by lack of initial  
10      capital, in lieu of any later reimbursement for which  
11      that applicant qualifies, and subject to full return of  
12      the advance payment in the event that the Quali-  
13      fying Smart Grid investment is not made;

14          (7) establish procedures to provide, in the event  
15      appropriated moneys in any year are insufficient to  
16      provide reimbursements for qualifying Smart Grid  
17      investments, that such reimbursement would be  
18      made in the next fiscal year or whenever funds are  
19      again sufficient, with the condition that the insuffi-  
20      ciency of funds to reimburse Qualifying Smart Grid  
21      Investments from moneys appropriated for that pur-  
22      pose does not create a Federal obligation to that ap-  
23      plicant; and

1           (8) have and exercise the discretion to deny  
2       grants for investments that do not qualify in the  
3       reasonable judgement of the Secretary.

4       (f) AUTHORIZATION OF APPROPRIATIONS.—There  
5   are authorized to be appropriated to the Secretary of En-  
6   ergy the sums of—

7           (1) \$10,000,000 for each of fiscal years 2008  
8       through 2012 to provide for administration of the  
9       Smart Grid Investment Matching Fund; and

10          (2) \$250,000,000 for fiscal year 2008 and  
11       \$500,000,000 for each of fiscal years 2009 through  
12       2012 to provide reimbursements of one-fourth of  
13       Qualifying Smart Grid Investments.

14   **SEC. 1104. SMART GRID INFORMATION REQUIREMENTS.**

15       (a) FINDINGS.—Congress finds that Smart Grid  
16   technologies will require, for their optimum use by elec-  
17   tricity consumers, that such consumers have access to in-  
18   formation on prices, use, and other factors in possession  
19   of their utilities or electricity suppliers, in order to assist  
20   the customers in optimizing their electricity use and lim-  
21   iting the associated environmental impacts.

22       (b) DEVELOPMENT OF RULES.—The Federal Energy  
23   Regulatory Commission shall develop and declare a stand-  
24   ard for the collection, presentation and delivery of infor-  
25   mation to electricity purchasers.



1       (c) APPLICATION OF SMART GRID INFORMATION  
2 STANDARD TO WHOLESALE MARKETS.—Within 60 days  
3 of the declaration of the standard under subsection (b),  
4 the Federal Energy Regulatory Commission shall propose  
5 a rule under which all public utilities, with respect to fed-  
6 erally jurisdictional sales for resale of electricity in inter-  
7 state commerce, and all approved regional transmission  
8 organizations subject to its jurisdiction, will implement  
9 those elements of the Smart Grid information standard  
10 developed pursuant to this section that the Commission  
11 determines to be relevant and to add value for purchasers  
12 of wholesale power or those utilizing interstate trans-  
13 mission.

14 **SEC. 1105. STATE CONSIDERATION OF INCENTIVES FOR**  
15 **SMART GRID.**

16       (a) CONSIDERATION OF ADDITIONAL STANDARDS.—  
17 Section 111(d) of the Public Utility Regulatory Policies  
18 Act of 1978 (16 U.S.C. 2621(d)) is amended by adding  
19 at the end:

20               “(18) UTILITY INVESTMENT IN SMART GRID IN-  
21 VESTMENTS.—Each electric utility shall prior to un-  
22 dertaking investments in non-advanced grid tech-  
23 nologies demonstrate that alternative investments in  
24 advanced grid technologies have been considered, in-  
25 cluding from a standpoint of cost-effectiveness,

1       where such cost-effectiveness considers costs and  
2       benefits on a life-cycle basis.

3           “(19) UTILITY COST OF SMART GRID INVEST-  
4       MENTS.—Each electric utility shall be permitted  
5       to—

6           “(A) recover from ratepayers the capital  
7       and operating expenditures and other costs of  
8       the utility for qualified smart grid system, in-  
9       cluding a reasonable rate of return on the cap-  
10      ital expenditures of the utility for a qualified  
11      smart grid system, and

12          “(B) recover in a timely manner the re-  
13      maining book-value costs of equipment rendered  
14      obsolete by the deployment of a qualified smart  
15      grid system, based on the remaining depreciable  
16      life of the obsolete equipment.

17          “(20) RATE DESIGN MODIFICATIONS TO PRO-  
18      MOTE ENERGY EFFICIENCY INVESTMENTS.—

19          “(A) IN GENERAL.—The rates allowed to  
20      be charged by any electric utility shall—

21           “(i) align utility incentives with the  
22      delivery of cost-effective energy efficiency;  
23      and

24           “(ii) promote energy efficiency invest-  
25      ments.

1           “(B) POLICY OPTIONS.—In complying with  
2           subparagraph (A), each State regulatory au-  
3           thority and each nonregulated utility shall con-  
4           sider—

5                   “(i) removing the throughput incen-  
6                   tive and other regulatory and management  
7                   disincentives to energy efficiency;

8                   “(ii) providing utility incentives for  
9                   the successful management of energy effi-  
10                  ciency programs;

11                  “(iii) including the impact on adoption  
12                  of energy efficiency as 1 of the goals of re-  
13                  tail rate design, recognizing that energy ef-  
14                  ficiency must be balanced with other objec-  
15                  tives;

16                  “(iv) adopting rate designs that en-  
17                  courage energy efficiency for each cus-  
18                  tomer class; and

19                  “(v) allowing timely recovery of en-  
20                  ergy efficiency-related costs.

21           “(21) SMART GRID INFORMATION.—

22                   “(A) STANDARD.—All electricity pur-  
23                   chasers shall be provided direct access, both in  
24                   written and electronic machine-readable form,

1 to information from their electricity provider as  
2 provided in subparagraph (B).

3 “(B) INFORMATION.—Information pro-  
4 vided under this section shall conform to the  
5 standardized rules issued by the Federal En-  
6 ergy Regulatory Commission under section  
7 1106(b) of the American Made Energy and  
8 Good Jobs Act and shall include:

9 “(i) PRICES.—Purchasers and other  
10 interested persons shall be provided with  
11 information on:

12 “(I) Time-based electricity prices  
13 in the wholesale electricity market;  
14 and

15 “(II) Time-based electricity retail  
16 prices or rates that are available to  
17 the purchasers.

18 “(ii) USAGE.—Purchasers shall be  
19 provided with the number of electricity  
20 units, expressed in kwh, purchased by  
21 them

22 “(iii) INTERVALS AND PROJEC-  
23 TIONS.—Updates of information on prices  
24 and usage shall be offered on not less than  
25 a daily basis, shall include hourly price and

1 use information, where available, and shall  
2 include a day-ahead projection of such  
3 price information to the extent available.

4 “(iv) SOURCES.—Purchasers and  
5 other interested person shall be provided  
6 with written information on the sources of  
7 the power provided by the utility, to the  
8 extent it can be determined, by type of  
9 generation, including greenhouse gas emis-  
10 sions and criteria pollutants associated  
11 each type of generation, for intervals dur-  
12 ing which such information is available on  
13 a cost-effective basis, but not less than  
14 monthly.

15 “(C) ACCESS.—Purchasers shall be able to  
16 access their own information at any time  
17 through the internet and on other means of  
18 communication elected by that utility for Smart  
19 Grid applications. Other interested persons  
20 shall be able to access information not specific  
21 to any purchaser through the Internet. Infor-  
22 mation specific to any purchaser shall be pro-  
23 vided solely to that purchaser.”.

24 (b) RECONSIDERATION OF CERTAIN STANDARDS.—  
25 Section 112 of the Public Utility Regulatory Policies Act

1 of 1978 (16 U.S.C. 2622) is amended by adding the fol-  
2 lowing at the end thereof:

3 “(g) RECONSIDERATION OF PRIOR TIME-OF-DAY  
4 AND COMMUNICATION STANDARDS.—Not later than 1  
5 year after the enactment of this subsection, each State  
6 regulatory authority (with respect to each electric utility  
7 for which it has ratemaking authority) and each nonregu-  
8 lated utility shall commence a reconsideration under sec-  
9 tion 111, or set a hearing date for reconsideration, with  
10 respect to the standards established by paragraphs (3)  
11 and (14) of section 111(d) to take into account Smart  
12 Grid technologies. Not later than 2 years after the date  
13 of the enactment of this subsection, each State regulatory  
14 authority (with respect to each electric utility for which  
15 it has ratemaking authority), and each nonregulated elec-  
16 tric utility, shall complete the reconsideration, and shall  
17 make the determination, referred to in section 111 with  
18 respect to the standards established by paragraphs (3)  
19 and (14) of section 111(d).”.

20 (c) COMPLIANCE.—

21 (1) TIME LIMITATIONS.—Section 112(b) of the  
22 Public Utility Regulatory Policies Act of 1978 (16  
23 U.S.C. 2622(b)) is amended by adding the following  
24 at the end thereof:

1           “(6)(A) Not later than 1 year after the enact-  
2           ment of this paragraph, but not less than 3 years  
3           after the conclusion of any prior review of such  
4           standards, each State regulatory authority (with re-  
5           spect to each electric utility for which it has rate-  
6           making authority) and each nonregulated utility  
7           shall commence the consideration referred to in sec-  
8           tion 111, or set a hearing date for consideration,  
9           with respect to the standards established by para-  
10          graphs (18) through (20) of section 111(d). Not  
11          later than 6 months after the promulgation of rules  
12          by the Federal Energy Regulatory Commission  
13          under section 1106(b) of the American Made Energy  
14          and Good Jobs Act, each State regulatory authority  
15          (with respect to each electric utility for which it has  
16          ratemaking authority) and each nonregulated utility  
17          shall commence the consideration referred to in sec-  
18          tion 111, or set a hearing date for consideration,  
19          with respect to the standard established by para-  
20          graph (21) of section 111(d).

21          “(B) Not later than 2 years after the date of  
22          the enactment of the this paragraph, but not less  
23          than 4 years after the conclusion of any prior review  
24          of such standard, each State regulatory authority  
25          (with respect to each electric utility for which it has

1       ratemaking authority), and each nonregulated elec-  
2       tric utility, shall complete the consideration, and  
3       shall make the determination, referred to in section  
4       111 with respect to each standard established by  
5       paragraphs (18) through (20) of section 111(d). Not  
6       later than 18 months after the promulgation of rules  
7       by the Federal Energy Regulatory Commission  
8       under section 1106(b) of the American Made Energy  
9       and Good Jobs Act each State regulatory authority  
10      (with respect to each electric utility for which it has  
11      ratemaking authority), and each nonregulated elec-  
12      tric utility, shall complete the consideration, and  
13      shall make the determination, referred to in section  
14      111 with respect to each standard established by  
15      paragraph (21) of section 111(d).”.

16           (2) FAILURE TO COMPLY.—Section 112(c) of  
17      such Act is amended by adding the following at the  
18      end: “ In the case of the standards established by  
19      paragraphs (18) through (21) of section 111(d), the  
20      reference contained in this subsection to the date of  
21      enactment of this Act shall be deemed to be a ref-  
22      erence to the date of enactment of such para-  
23      graphs.”



1           (3) PRIOR STATE ACTIONS.—Section 112(d) of  
2       such Act is amended by inserting “and paragraphs  
3       (18) through (20)” before “of such 111(d)” .

4 **SEC. 1106. DOE STUDY OF SECURITY ATTRIBUTES OF**  
5 **SMART GRID SYSTEMS.**

6       (a) DOE STUDY.—The Secretary of Energy shall,  
7       within 6 months after the he completes the first biennial  
8       assessment and report under section 1102 of the American  
9       Made Energy and Good Jobs Act, submit a report to Con-  
10      gress that provides a quantitative assessment and deter-  
11      mination of the existing and potential impacts of the de-  
12      ployment of Smart Grid systems on improving the security  
13      of the Nation’s electricity infrastructure and operating ca-  
14      pability. The report shall include but not be limited to spe-  
15      cific recommendations on each of the following:

16           (1) How smart grid systems can help in making  
17       the Nation’s electricity system less vulnerable to dis-  
18       ruptions due to intentional acts against the system.

19           (2) How smart grid systems can help in restor-  
20       ing the integrity of the Nation’s electricity system  
21       subsequent to disruptions.

22           (3) How smart grid systems can facilitate emer-  
23       gency communications and control of the Nation’s  
24       electricity system during times of localized or nation-  
25       wide emergency.

1 (b) CONSULTATION.—The Secretary shall consult  
2 with other Federal agencies in the development of the re-  
3 port under this section, including but not limited to the  
4 Secretary of Homeland Security, the Federal Energy Reg-  
5 ulatory Commission and the Electric Reliability Organiza-  
6 tion certified by the Commission under section 215(c) of  
7 the Federal Power Act (16 U.S.C. 824 o) as added by  
8 section 1211 of the Energy Policy Act of 2005 (P.L. 109-  
9 58; 119 Stat.941)

10 (c) FUNDING.—The Secretary shall fund demonstra-  
11 tion projects for the purpose of demonstrating the findings  
12 of the report under this section. Not more than  
13 \$10,000,000 are authorized to be appropriated for such  
14 projects.

## 15 **Subtitle C—Loan Guarantee**

## 16 **Improvement**

### 17 **SEC. 1201. AMOUNT OF LOANS GUARANTEED.**

18 Section 1702(c) of the Energy Policy Act of 2005 (42  
19 U.S.C. 16512(c)) is amended to read as follows:

20 “(c) AMOUNT.—

21 “(1) PERCENTAGE OF PROJECT COST.—A guar-  
22 antee by the Secretary shall not exceed an amount  
23 equal to 80 percent of the project cost of the facility  
24 that is the subject of the guarantee, as estimated at  
25 the time at which the guarantee is issued, and shall

1 be no less than the minimum amount determined by  
2 the Secretary to be likely to attract nonguaranteed  
3 investment adequate to capitalize the project.

4 “(2) PERCENTAGE OF LOAN.—Subject to para-  
5 graph (1), the Secretary may guarantee up to 100  
6 percent of any loan or other debt obligation of the  
7 borrower to fund an eligible project.”.

8 **SEC. 1202. EXCLUSION OF CATEGORIES.**

9 Section 1704 of the Energy Policy Act of 2005 (42  
10 U.S.C. 16514) is amended by adding at the end the fol-  
11 lowing new subsection:

12 “(c) EXCLUSION OF CATEGORIES.—No appropriation  
13 authorized pursuant to this section may exclude any cat-  
14 egory of eligible project described in section 1703.”.

15 **Subtitle D—Fuels and**  
16 **Transportation**

17 **PART 1—FUELS AND TRANSPORTATION**

18 **SEC. 1301. ALTERNATIVE FUELS PROGRAM.**

19 (a) IN GENERAL.—Section 211 of the Clean Air Act  
20 (42 U.S.C. 4575) is amended by adding the following new  
21 subsection at the end thereof:

22 “(t) ALTERNATIVE FUEL PROGRAM.—

23 “(1) DEFINITIONS.—In this section\_\_

24 “(A) ALTERNATIVE FUEL.—

1 “(i) IN GENERAL.—The term ‘alter-  
2 native fuel’ means the portion of any  
3 motor vehicle or nonroad fuel, as measured  
4 by volume, that consists of—

5 “(I) renewable fuel;

6 “(II) methanol, denatured eth-  
7 anol, butanol, and other alcohols;

8 “(III) natural gas, including liq-  
9 uid fuels domestically produced from  
10 natural gas;

11 “(IV) liquefied petroleum gas;

12 “(V) hydrogen;

13 “(VI) qualifying coal-derived liq-  
14 uid fuel;

15 “(VII) fuels (not including a fuel  
16 that consists of alcohol) derived from  
17 biological materials (including bio-  
18 diesel);

19 “(VIII) electricity provided from  
20 the electric power transmission and  
21 distribution system; and

22 “(IX) any other fuel that the Ad-  
23 ministrator determines, by rule, is not  
24 derived from crude oil and would yield

1 energy security benefits or environ-  
2 mental benefits.

3 “(ii) QUALIFYING COAL-DERIVED LIQ-  
4 UID FUEL.—The term ‘qualifying coal-de-  
5 rived liquid fuel’ means liquid fuel pro-  
6 duced by a project that—

7 “(I) converts coal to one or more  
8 liquid or gaseous transportation fuels;

9 “(II) demonstrates the capture,  
10 and sequestration or disposal or use  
11 of, the carbon dioxide produced in the  
12 conversion process; and

13 “(III) on the basis of a carbon  
14 dioxide sequestration plan prepared by  
15 the applicant, is certified by the Ad-  
16 ministrator, in consultation with the  
17 Secretary of Energy, as producing  
18 fuel with life cycle carbon dioxide  
19 emissions at or below the average life  
20 cycle carbon dioxide emissions for the  
21 same type of fuel produced at tradi-  
22 tional petroleum based facilities with  
23 similar annual capacities.

24 “(iii) BLENDING COMPONENTS.—The  
25 term ‘alternative fuel’ includes any portion

1 of a blending component that is derived  
2 from an alternative fuel.

3 “(B) NONROAD FUEL.—The term ‘nonroad  
4 fuel’ means fuel that is used, intended for use,  
5 or made available for use as a fuel in a nonroad  
6 engine or a nonroad vehicle.

7 “(C) OBLIGATED PARTY.—The term ‘obli-  
8 gated party’ means any refiner, blender, or im-  
9 porter of motor vehicle, or nonroad, gasoline or  
10 diesel fuel, that is designated an obligated party  
11 under regulations issued by the Administrator  
12 for purposes of this subsection.

13 “(D) OTHER TERMS.—The terms used in  
14 this subsection have the same meaning as when  
15 used in subsection (o).

16 “(2) ALTERNATIVE FUEL REGULATIONS.—

17 “(A) STANDARD.—Not later than 2 years  
18 after the date of enactment of this subsection,  
19 and from time to time thereafter, the Adminis-  
20 trator shall promulgate regulations to ensure  
21 that motor vehicle and nonroad fuel sold or in-  
22 troduced into commerce in the United States,  
23 on an annual average basis, contains the appli-  
24 cable volume of alternative fuel determined in  
25 accordance with this subsection.

1                   “(B) PROVISIONS OF REGULATIONS.—Re-  
2                   gardless of the date of promulgation, the regu-  
3                   lations promulgated under subparagraph (A)\_\_\_

4                   “(i) shall contain compliance provi-  
5                   sions applicable to refiners, blenders, dis-  
6                   tributors, and importers, as appropriate, to  
7                   ensure that the requirements of this para-  
8                   graph are met; but

9                   “(ii) shall not—

10                   “(I) restrict geographic areas in  
11                   which alternative fuel may be used; or

12                   “(II) impose any per-gallon obli-  
13                   gation for the use of alternative fuel.

14                   “(3) APPLICABLE VOLUME.—For the purpose  
15                   of the regulations under this subsection, the applica-  
16                   ble volume (in billions of gallons) shall be deter-  
17                   mined under this paragraph.

18                   “(A) CALENDAR YEARS 2013 THROUGH  
19                   2025.—The applicable volume (in billions of gal-  
20                   lons) for the calendar years 2013 through 2025  
21                   shall be as provided in the following table:

calendar year	applicable volume
2013 .....	14
2014 .....	15
2015 .....	16
2016 .....	17
2017 .....	18
2018 .....	19

calendar year	applicable volume
2019 .....	20
2020 .....	21
2021 .....	23
2022 .....	26
2023 .....	29
2024 .....	32
2025 .....	35

1                   “(B) CALENDAR YEAR 2026 AND THERE-  
2                   AFTER.—Except as otherwise provided in this  
3                   paragraph, the applicable volume for calendar  
4                   year 2026 and each calendar year thereafter  
5                   shall be determined by rule by the Adminis-  
6                   trator, in coordination with the Secretary of  
7                   Agriculture and the Secretary of Energy, based  
8                   on a review of the implementation of the pro-  
9                   gram under this subsection during calendar  
10                  years 2020 through 2025, including a review of  
11                  each of the following:

12                   “(i) The impact of the use of alter-  
13                   native fuels on the energy security of the  
14                   United States.

15                   “(ii) The impact of the use of alter-  
16                   native fuels on public health and the envi-  
17                   ronment, including air and water quality.

18                   “(iii) The expected annual rate of fu-  
19                   ture production of alternative fuels.



1           “(iv) The impact of alternative fuels  
2           on the infrastructure of the United States,  
3           including the deliverability of materials,  
4           goods, and products other than alternative  
5           fuels, and the sufficiency of the infrastruc-  
6           ture to deliver alternative fuel.

7           “(v) The impact of the use of alter-  
8           native fuels on job creation, the price and  
9           supply of agricultural commodities, and  
10          rural economic development.

11          “(C) MINIMUM APPLICABLE VOLUME FOR  
12          CALENDAR YEAR 2026 AND THEREAFTER.—For  
13          the purpose of subparagraph (B), the minimum  
14          applicable volume for calendar year 2026 and  
15          each calendar year thereafter shall be equal to  
16          the product obtained by multiplying the number  
17          obtained under clause (i) by the ratio obtained  
18          under clause (ii).

19          “(i) The number of gallons of motor  
20          vehicle and nonroad fuel that the Adminis-  
21          trator estimates will be sold or introduced  
22          into commerce in the calendar year.

23          “(ii) The ratio that—

24                  “(I) 35,000,000,000 gallons of  
25                  alternative fuel bears to

1 “(II) the number of gallons of  
2 motor vehicle and nonroad fuel sold or  
3 introduced into commerce in calendar  
4 year 2025.

5 “(4) ALTERNATIVE FUEL PERCENTAGES.—

6 “(A) PROVISION OF ESTIMATE OF VOL-  
7 UMES OF MOTOR VEHICLE AND NONROAD FUEL  
8 SALES.—Not later than October 31, 2012, and  
9 annually thereafter, the Administrator of the  
10 Energy Information Administration shall pro-  
11 vide to the Administrator of the Environmental  
12 Protection Agency an estimate, with respect to  
13 the following calendar year, of the volumes of  
14 motor vehicle and nonroad fuel projected to be  
15 sold or introduced into commerce in the United  
16 States during the following calendar year.

17 “(B) DETERMINATION OF PERCENT-  
18 AGES.—Not later than November 30 of each  
19 calendar year after 2012, based on the estimate  
20 provided under subparagraph (A), the Adminis-  
21 trator shall determine and publish in the Fed-  
22 eral Register, with respect to the following cal-  
23 endar year, the percentage of the projected vol-  
24 ume of motor vehicle and nonroad fuel that  
25 must be alternative fuel in order to ensure that

1 the applicable volume requirements of para-  
2 graph (3) are met.

3 “(C) REQUIRED ELEMENTS.—The alter-  
4 native fuel obligation determined for a calendar  
5 year under subparagraph (B) shall—

6 “(i) be applicable to refiners, blenders,  
7 and importers of motor vehicle and  
8 nonroad gasoline and diesel fuel, as appro-  
9 priate;

10 “(ii) be expressed in terms of a vol-  
11 ume percentage of motor vehicle and  
12 nonroad fuel sold or introduced into com-  
13 merce in the United States; and

14 “(iii) subject to clause (i), consist of a  
15 single applicable percentage that applies to  
16 all categories of persons specified in clause  
17 (i).

18 “(D) ADJUSTMENTS.—In determining the  
19 alternative fuel percentage for a calendar year,  
20 the Administrator shall make adjustments to  
21 prevent the imposition of redundant obligations  
22 on any obligated party.

23 “(5) COMPLIANCE VALUES.—

24 “(A) TABLE.—The Administrator shall as-  
25 sign a compliance value for each alternative fuel

1 in accordance with the following table to be  
 2 used as a multiplier to determine the extent to  
 3 which each gallon or other specified unit of the  
 4 alternative fuel will satisfy the alternative fuel  
 5 volume obligation under this subsection:

<b>“Fuel type</b>	<b>Compli- ance Val- ues, Years 2013-2015</b>	<b>Compli- ance Val- ues, Years 2016-2020</b>	<b>Compli- ance Val- ues, Years After 2020</b>
Ethanol (non-Cellulosic) .....	1.0	1.0	1.0
Ethanol (Cellulosic) .....	2.5	1.0	1.0
Biodiesel .....	1.4	1.4	1.4
Gas-to-Liquid Diesel Fuel .....	1.5	1.5	1.5
Coal-to-Liquid Diesel Fuel .....	1.5	1.5	1.5
Compressed Natural Gas (78 standard cubic feet) .....	1.0	1.0	1.0
Liquefied Natural Gas .....	1.0	1.0	1.0
Liquefied Petroleum Gas .....	1.1	1.1	1.1
Electricity (6.4 kilowatt-hours)	2.5	2.5	1.0
Gaseous Hydrogen (132 stand- ard cubic feet) .....	2.5	2.5	1.0
Liquid Hydrogen .....	2.3	2.3	0.8
Methanol .....	0.8	0.8	0.8
Butanol .....	1.3	1.3	1.3
Bio-Butanol .....	1.3	1.3	1.3

6 All values are expressed in terms of gallons un-  
 7 less otherwise specified.

1                   “(B) AUTHORITY OF THE ADMINIS-  
2                   TRATOR.—

3                   “(i) IN GENERAL.—In accordance  
4                   with the requirements described in clause  
5                   (ii), the Administrator may by rule—

6                   “(I) add fuel types to the table  
7                   contained in subparagraph (A);

8                   “(II) revise any fuel type or com-  
9                   pliance value referred to in the table  
10                  contained in subparagraph (A); and

11                  “(III) assign each new or revised  
12                  category or subcategory of an alter-  
13                  native fuel type an appropriate com-  
14                  pliance value.

15                  “(ii) CALCULATION OF COMPLIANCE  
16                  VALUES.—When the Administrator assigns  
17                  or revises the compliance value for an al-  
18                  ternative fuel type, the Administrator shall  
19                  establish that compliance value equal to  
20                  the ratio of the energy content of the alter-  
21                  native fuel to the energy content of eth-  
22                  anol. No compliance value for the years  
23                  2013 through 2020 may be revised by the  
24                  Administrator under this subparagraph for  
25                  electricity, gaseous hydrogen, or liquid hy-

1                   drogen or for the years 2013 through 2015  
2                   for cellulosic ethanol.

3                   “(6) COMPLIANCE WITH STANDARD; USE OF  
4 IDENTIFICATION NUMBERS.—

5                   “(A) GENERATION AND ASSIGNMENT.—  
6 Regulations promulgated under this subsection  
7 shall provide that the producer or importer of  
8 any alternative fuel shall generate and assign to  
9 each batch or other quantifiable unit (as deter-  
10 mined by the Administrator) a unique identi-  
11 fication number (except as provided in subpara-  
12 graph (B)).

13                   “(B) ELECTRICITY.—The regulations of  
14 the Administrator under this subsection shall  
15 establish a process for generating and assigning  
16 identification numbers for the amount of elec-  
17 tricity from the electric power transmission and  
18 distribution system expected to be used as a  
19 motor vehicle or nonroad fuel. For vehicles  
20 manufactured prior to 2020 or such later time  
21 as the Administrator finds that the producers  
22 of the electricity used as a motor vehicle or  
23 nonroad vehicle fuel can be determined, the reg-  
24 ulations shall provide that the identification  
25 numbers for electricity shall be assigned to the

1 manufacturer or importer of motor vehicles or  
2 nonroad vehicles fueled by electricity from the  
3 electric power transmission and distribution  
4 system.

5 “(C) BASIS.—The identification numbers  
6 referred to in this paragraph shall be based on  
7 the volume of the alternative fuel and the com-  
8 pliance values established under paragraph (5).

9 “(D) COMPLIANCE WITH THE STAND-  
10 ARD.—Obligated parties shall demonstrate com-  
11 pliance with the standard under this subsection  
12 by surrendering identification numbers in an  
13 appropriate quantity to the Administrator.

14 “(E) DURATION.—An identification num-  
15 ber generated under this subsection shall be  
16 valid to show compliance for the 12 months as  
17 of the date of generation. The Administrator  
18 shall interpret this subparagraph the same way  
19 as section 211(o)(5)(C) of this Act is inter-  
20 preted.

21 “(F) TRADING.—Identification numbers  
22 may be held by any individual or entity and  
23 transferred by any individual or entity to any  
24 other individual or entity.

1           “(G) INABILITY TO GENERATE OR PUR-  
2 CHASE.—The regulations promulgated under  
3 this paragraph shall include provisions allowing  
4 any obligated party that is unable to generate  
5 or purchase sufficient identification numbers to  
6 meet the standard under paragraph (2) to carry  
7 forward an alternative fuel deficit on condition  
8 that the obligated party in the calendar year  
9 following the year in which the deficit is cre-  
10 ated—

11                   “(i) achieves compliance with the  
12 standard under paragraph (2); and

13                   “(ii) generates or purchases additional  
14 alternative fuel identification numbers to  
15 offset the alternative fuel deficit of the pre-  
16 vious year.

17           “(H) PROPERTY .—An identification num-  
18 ber generated under this subsection does not  
19 constitute a property right. Nothing in this sub-  
20 section or in any other provision of law shall be  
21 construed to limit the authority of the United  
22 States to terminate or limit such an identifica-  
23 tion number.

24           “(I) IDENTIFICATION NUMBERS FROM RFS  
25 PROGRAM.—To demonstrate compliance for the



1 year 2013, the Administrator shall permit the  
2 use of identification numbers generated and as-  
3 signed under the regulations under subsection  
4 (o) to the same extent that subsection (o) would  
5 have allowed their use in 2013. Deficits under  
6 subsection (o) for the year 2012 may be carried  
7 forward to the year 2013 if the requirements of  
8 subsection (o)(5)(D) of this section and sub-  
9 paragraph (G) of this paragraph are met.

10 “(7) WAIVERS.—

11 “(A) IN GENERAL.—Based on a petition  
12 by a State, an obligated party, or on the Ad-  
13 ministrator’s own motion, the Administrator, in  
14 consultation with the Secretary of Agriculture  
15 and the Secretary of Energy, may waive the re-  
16 quirements of paragraph (2) in whole or in part  
17 by reducing the national quantity of alternative  
18 fuel required under paragraph (3) if the Admin-  
19 istrator, after public notice and opportunity for  
20 comment, determines that—

21 “(i) implementation of the require-  
22 ments would severely harm the economy or  
23 environment of a State, a region, or the  
24 United States; or

1 “(ii) there is an inadequate domestic  
2 supply.

3 “(B) PETITIONS.—The Administrator shall  
4 approve or disapprove a petition for a waiver  
5 within 90 days after the date on which the peti-  
6 tion is received by the Administrator.

7 “(C) TERMINATION OF WAIVERS.—A waiv-  
8 er granted under subparagraph (A) shall termi-  
9 nate after 1 year, but may be renewed by the  
10 Administrator after consultation with the Sec-  
11 retary of Agriculture and the Secretary of En-  
12 ergy.”.

13 (b) PENALTIES AND ENFORCEMENT.—Section  
14 211(d) of the Clean Air Act (42 U.S.C.7545(d)) is amend-  
15 ed as follows:

16 (1) In paragraph (1)\_\_\_

17 (A) in the first sentence, by striking “or  
18 (o)” each place it appears and inserting “(o), or  
19 (u)”;

20 (B) in the second sentence, by striking “or  
21 (o)” and inserting “(o), or (u)”;

22 (2) in the first sentence of paragraph (2), by  
23 striking “and (o)” each place it appears and insert-  
24 ing “(o), and (u)”.

25 (c) RENEWABLE FUEL PROGRAM.—

1           (1) TERMINATION.—Subparagraph (B) of sec-  
2           tion 211(o)(2) of the Clean Air Act (42 U.S.C.  
3           4575(o)(2)(B)) is amended by striking all after  
4           clause (i).

5           (2) 2009 THROUGH 2012 REQUIREMENTS.—The  
6           items relating to the years 2009 through 2012 in  
7           the table in clause (i) of such subparagraph (B) are  
8           amended as follows:

9                   (A) Strike “6.1” and insert “10” .

10                   (B) Strike “6.8” and insert “11” .

11                   (C) Strike “7.4” and insert “12” .

12                   (D) Strike “7.5” and insert “13” .

13   **SEC. 1302. REFINERY PERMIT STREAMLINING.**

14           (a) DEFINITIONS.—For purposes of this section—

15                   (1) the term “Administrator” means the Ad-  
16                   ministrator of the Environmental Protection Agency;

17                   (2) the term “applicant” means a person who  
18                   is seeking a Federal refinery authorization;

19                   (3) the term “biomass” has the meaning given  
20                   that term in section 932(a)(1) of the Energy Policy  
21                   Act of 2005;

22                   (4) the term “Federal refinery authorization”—

23                           (A) means any authorization required  
24                           under Federal law, whether administered by a  
25                           Federal or State administrative agency or offi-

1           cial, with respect to siting, construction, expansion,  
2           sion, or operation of a refinery; and

3           (B) includes any permits, licenses, special  
4           use authorizations, certifications, opinions, or  
5           other approvals required under Federal law  
6           with respect to siting, construction, expansion,  
7           or operation of a refinery;

8           (5) the term “Indian lands” means lands held  
9           in trust for the benefit of an Indian tribe or indi-  
10          vidual or held by an Indian tribe or individual sub-  
11          ject to a restriction by the United States against  
12          alienation;

13          (6) the term “Indian tribe” has the meaning  
14          given the term in section 4 of the Indian Self-Deter-  
15          mination and Education Assistance Act (25 U.S.C.  
16          450b);

17          (7) the term “refinery” means—

18                (A) a facility designed and operated to re-  
19                ceive, load, unload, store, transport, process,  
20                and refine crude oil or oil originally derived  
21                from crude oil by any chemical or physical proc-  
22                ess, including distillation, fluid catalytic crack-  
23                ing, hydrocracking, coking, alkylation,  
24                etherification, polymerization, catalytic reform-  
25                ing, isomerization, hydrotreating, blending, and

1 any combination thereof, in order to produce  
2 gasoline, distillate, or lubricating base oil;

3 (B) a facility designed and operated to re-  
4 ceive, load, unload, store, transport, process,  
5 and refine coal by any chemical or physical  
6 process, including liquefaction, in order to  
7 produce gasoline or diesel as its primary out-  
8 put; or

9 (C) a facility designed and operated to re-  
10 ceive, load, unload, store, transport, process (in-  
11 cluding biochemical, photochemical, and bio-  
12 technology processes), and refine biomass in  
13 order to produce biofuel;

14 (8) the term “State” means a State, the Dis-  
15 trict of Columbia, the Commonwealth of Puerto  
16 Rico, and any other territory or possession of the  
17 United States; and

18 (9) the term “tribal organization” has the  
19 meaning given the term in section 4 of the Indian  
20 Self-Determination and Education Assistance Act  
21 (25 U.S.C. 450b).

22 (b) STATE AND TRIBAL ORGANIZATION ASSIST-  
23 ANCE.—

24 (1) FINANCIAL ASSISTANCE.—At the request of  
25 a governor of a State, or at the request of a tribal

1 organization, the Administrator is authorized to pro-  
2 vide financial assistance to that State or Indian tribe  
3 to facilitate the hiring of additional personnel to as-  
4 sist the State or Indian tribe with expertise in fields  
5 relevant to consideration of Federal refinery author-  
6 izations.

7 (2) OTHER ASSISTANCE.—At the request of a  
8 governor of a State, or at the request of a tribal or-  
9 ganization, a Federal agency responsible for a Fed-  
10 eral refinery authorization shall provide technical,  
11 legal, or other nonfinancial assistance to that State  
12 or Indian tribe to facilitate its consideration of Fed-  
13 eral refinery authorizations.

14 (c) REFINERY PROCESS COORDINATION AND PROCE-  
15 DURES.—

16 (1) APPOINTMENT OF FEDERAL COORDI-  
17 NATOR.—

18 (A) IN GENERAL.—The President shall ap-  
19 point a Federal coordinator to perform the re-  
20 sponsibilities assigned to the Federal coordi-  
21 nator under this section.

22 (B) OTHER AGENCIES.—Each Federal and  
23 State agency or official required to provide a  
24 Federal refinery authorization shall cooperate  
25 with the Federal coordinator.

1 (2) FEDERAL REFINERY AUTHORIZATIONS.—

2 (A) MEETING PARTICIPANTS.—Not later  
3 than 30 days after receiving a notification from  
4 an applicant that the applicant is seeking a  
5 Federal refinery authorization pursuant to Fed-  
6 eral law, the Federal coordinator appointed  
7 under paragraph (1) shall convene a meeting of  
8 representatives from all Federal and State  
9 agencies responsible for a Federal refinery au-  
10 thorization with respect to the refinery. The  
11 governor of a State shall identify each agency  
12 of that State that is responsible for a Federal  
13 refinery authorization with respect to that re-  
14 finery.

15 (B) MEMORANDUM OF AGREEMENT.—(i)  
16 Not later than 90 days after receipt of a notifi-  
17 cation described in subparagraph (A), the Fed-  
18 eral coordinator and the other participants at a  
19 meeting convened under subparagraph (A) shall  
20 establish a memorandum of agreement setting  
21 forth the most expeditious coordinated schedule  
22 possible for completion of all Federal refinery  
23 authorizations with respect to the refinery, con-  
24 sistent with the full substantive and procedural  
25 review required by Federal law. If a Federal or

1 State agency responsible for a Federal refinery  
2 authorization with respect to the refinery is not  
3 represented at such meeting, the Federal coor-  
4 dinator shall ensure that the schedule accommo-  
5 dates those Federal refinery authorizations,  
6 consistent with Federal law. In the event of  
7 conflict among Federal refinery authorization  
8 scheduling requirements, the requirements of  
9 the Environmental Protection Agency shall be  
10 given priority.

11 (ii) Not later than 15 days after com-  
12 pleting the memorandum of agreement, the  
13 Federal coordinator shall publish the memo-  
14 randum of agreement in the Federal Register.

15 (iii) The Federal coordinator shall ensure  
16 that all parties to the memorandum of agree-  
17 ment are working in good faith to carry out the  
18 memorandum of agreement, and shall facilitate  
19 the maintenance of the schedule established  
20 therein.

21 (3) CONSOLIDATED RECORD.—The Federal co-  
22 ordinator shall, with the cooperation of Federal and  
23 State administrative agencies and officials, maintain  
24 a complete consolidated record of all decisions made  
25 or actions taken by the Federal coordinator or by a



1 Federal administrative agency or officer (or State  
2 administrative agency or officer acting under dele-  
3 gated Federal authority) with respect to any Federal  
4 refinery authorization. Such record shall be the  
5 record for judicial review under paragraph (4) of de-  
6 cisions made or actions taken by Federal and State  
7 administrative agencies and officials, except that, if  
8 the Court determines that the record does not con-  
9 tain sufficient information, the Court may remand  
10 the proceeding to the Federal coordinator for further  
11 development of the consolidated record.

12 (4) REMEDIES.—

13 (A) IN GENERAL.—The United States Dis-  
14 trict Court for the district in which the pro-  
15 posed refinery is located shall have exclusive ju-  
16 risdiction over any civil action for the review of  
17 the failure of an agency or official to act on a  
18 Federal refinery authorization in accordance  
19 with the schedule established pursuant to the  
20 memorandum of agreement.

21 (B) STANDING.—If an applicant or a party  
22 to a memorandum of agreement alleges that a  
23 failure to act described in subparagraph (A) has  
24 occurred and that such failure to act would  
25 jeopardize timely completion of the entire

1 schedule as established in the memorandum of  
2 agreement, such applicant or other party may  
3 bring a cause of action under this paragraph.

4 (C) COURT ACTION.—If an action is  
5 brought under subparagraph (B), the Court  
6 shall review whether the parties to the memo-  
7 randum of agreement have been acting in good  
8 faith, whether the applicant has been cooper-  
9 ating fully with the agencies that are respon-  
10 sible for issuing a Federal refinery authoriza-  
11 tion, and any other relevant materials in the  
12 consolidated record. Taking into consideration  
13 those factors, if the Court finds that a failure  
14 to act described in subparagraph (A) has oc-  
15 curred, and that such failure to act would jeop-  
16 ardize timely completion of the entire schedule  
17 as established in the memorandum of agree-  
18 ment, the Court shall establish a new schedule  
19 that is the most expeditious coordinated sched-  
20 ule possible for completion of proceedings, con-  
21 sistent with the full substantive and procedural  
22 review required by Federal law. The court may  
23 issue orders to enforce any schedule it estab-  
24 lishes under this subparagraph.

1 (D) FEDERAL COORDINATOR'S ACTION.—

2 When any civil action is brought under this  
3 paragraph, the Federal coordinator shall imme-  
4 diately file with the Court the consolidated  
5 record compiled by the Federal coordinator pur-  
6 suant to paragraph (3).

7 (E) EXPEDITED REVIEW.—The Court shall  
8 set any civil action brought under this para-  
9 graph for expedited consideration.

10 (5) APPLICABILITY.—This subsection shall only  
11 apply to a refinery sited or proposed to be sited or  
12 expanded or proposed to be expanded—

13 (A) in a State whose governor has sub-  
14 mitted a request to the President for the appli-  
15 cation of the process coordination and rules of  
16 procedure under this subsection to the siting,  
17 construction, expansion, or operation of any re-  
18 finery in that State;

19 (B) on a closed military installation, or  
20 portion thereof, made available for the siting of  
21 a refinery in the manner provided by the base  
22 closure law applicable to the installation; or

23 (C) on Indian lands if the relevant tribal  
24 organization has submitted a request to the  
25 President for the application of the process co-

ordination and rules of procedure under this subsection to the siting, construction, expansion, or operation of any refinery on that Indian land.

(d) SAVINGS CLAUSE.—Nothing in this section shall be construed to affect the application of any environmental or other law, or to prevent any party from bringing a cause of action under any environmental or other law, including citizen suits.

(e) REFINERY REVITALIZATION REPEAL.—Subtitle  
H of title III of the Energy Policy Act of 2005 and the  
items relating thereto in the table of contents of such Act  
are repealed.

14 SEC. 1303. STANDBY LOANS FOR QUALIFYING COAL-TO-LIQ-  
15 UIDS PROJECTS.

Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by adding at the end the following new subsection:

19 “(k) STANDBY LOANS FOR QUALIFYING CTL  
20 PROJECTS.—

21 “(1) DEFINITIONS.—For purposes of this sub-  
22 section:

“**(A) CAP PRICE.**—The term ‘cap price’ means a market price specified in the standby

1 loan agreement above which the project is re-  
2 quired to make payments to the United States.

3 “(B) FULL TERM.—The term ‘full term’  
4 means the full term of a standby loan agree-  
5 ment, as specified in the agreement, which shall  
6 not exceed the lesser of 30 years or 90 percent  
7 of the projected useful life of the project (as de-  
8 termined by the Secretary).

9 “(C) MARKET PRICE.—The term ‘market  
10 price’ means the average quarterly price of a  
11 petroleum price index specified in the standby  
12 loan agreement.

13 “(D) MINIMUM PRICE.—The term ‘min-  
14 imum price’ means a market price specified in  
15 the standby loan agreement below which the  
16 United States is obligated to make disburse-  
17 ments to the project.

18 “(E) OUTPUT.—The term ‘output’ means  
19 some or all of the liquid or gaseous transpor-  
20 tation fuels produced from the project, as speci-  
21 fied in the loan agreement.

22 “(F) PRIMARY TERM.—The term ‘primary  
23 term’ means the initial term of a standby loan  
24 agreement, as specified in the agreement, which  
25 shall not exceed the lesser of 20 years or 75

1           percent of the projected useful life of the  
2           project (as determined by the Secretary).

3           “(G) QUALIFYING CTL PROJECT.—The  
4           term ‘qualifying CTL project’ means—

5                   “(i) a commercial-scale project that  
6                   converts coal to one or more liquid or gas-  
7                   eous transportation fuels blended with re-  
8                   newable fuel; or

9                   “(ii) not more than one project at a  
10                  facility that converts petroleum refinery  
11                  waste products, including petroleum coke,  
12                  into one or more liquids or gaseous trans-  
13                  portation fuels blended with renewable  
14                  fuel,

15           that demonstrates the capture, and sequestra-  
16           tion or disposal or use of, the carbon dioxide  
17           produced in the conversion process, and that,  
18           on the basis of a carbon dioxide sequestration  
19           plan prepared by the applicant, is certified by  
20           the Administrator of the Environmental Protec-  
21           tion Agency, in consultation with the Secretary,  
22           as producing fuel with life cycle carbon dioxide  
23           emissions at or below the average life cycle car-  
24           bon dioxide emissions for the same type of fuel

1 produced at traditional petroleum based facili-  
2 ties with similar annual capacities.

3 “(H) STANDBY LOAN AGREEMENT.—The  
4 term ‘standby loan agreement’ means a loan  
5 agreement entered into under paragraph (2).

6 “(2) STANDBY LOANS.—

7 “(A) LOAN AUTHORITY.—The Secretary  
8 may enter into standby loan agreements with  
9 not more than six qualifying CTL projects, at  
10 least one of which shall be a project jointly or  
11 in part owned by two or more small coal pro-  
12 ducers. Such an agreement—

13 “(i) shall provide that the Secretary,  
14 to the extent provided in advance in appro-  
15 priations Acts, will make a direct loan  
16 (within the meaning of section 502(1) of  
17 the Federal Credit Reform Act of 1990) to  
18 the qualifying CTL project; and

19 “(ii) shall set a cap price and a min-  
20 imum price for the primary term of the  
21 agreement.

22 “(B) LOAN DISBURSEMENTS.—Such a loan  
23 shall be disbursed during the primary term of  
24 such agreement whenever the market price falls  
25 below the minimum price. The amount of such

1           disbursements in any calendar quarter shall be  
2           equal to the excess of the minimum price over  
3           the market price, times the output of the  
4           project (but not more than a total level of dis-  
5           bursements specified in the agreement).

6           “(C) LOAN REPAYMENTS.—The Secretary  
7           shall establish terms and conditions, including  
8           interest rates and amortization schedules, for  
9           the repayment of such loan within the full term  
10          of the agreement, subject to the following limi-  
11          tations:

12                 “(i) If in any calendar quarter during  
13                 the primary term of the agreement the  
14                 market price is less than the cap price, the  
15                 project may elect to defer some or all of its  
16                 repayment obligations due in that quarter.  
17                 Any unpaid obligations will continue to ac-  
18                 crue interest.

19                 “(ii) If in any calendar quarter during  
20                 the primary term of the agreement the  
21                 market price is greater than the cap price,  
22                 the project shall meet its scheduled repay-  
23                 ment obligation plus deferred repayment  
24                 obligations, but shall not be required to  
25                 pay in that quarter an amount that is



1 more than the excess of the market price  
2 over the cap price, times the output of the  
3 project.

4 “(iii) At the end of the primary term  
5 of the agreement, the cumulative amount  
6 of any deferred repayment obligations, to-  
7 gether with accrued interest, shall be am-  
8 ortized (with interest) over the remainder  
9 of the full term of the agreement.

10 “(3) PROFIT-SHARING.—The Secretary is au-  
11 thorized to enter into a profit-sharing agreement  
12 with the project at the time the standby loan agree-  
13 ment is executed. Under such an agreement, if the  
14 market price exceeds the cap price in a calendar  
15 quarter, a profit-sharing payment shall be made for  
16 that quarter, in an amount equal to—

17 “(A) the excess of the market price over  
18 the cap price, times the output of the project;  
19 less

20 “(B) any loan repayments made for the  
21 calendar quarter.

22 “(4) COMPLIANCE WITH FEDERAL CREDIT RE-  
23 FORM ACT.—

24 “(A) UPFRONT PAYMENT OF COST OF  
25 LOAN.—No standby loan agreement may be en-

1           tered into under this subsection unless the  
2           project makes a payment to the United States  
3           that the Office of Management and Budget de-  
4           termines is equal to the cost of such loan (de-  
5           termined under 502(5)(B) of the Federal Credit  
6           Reform Act of 1990). Such payment shall be  
7           made at the time the standby loan agreement is  
8           executed.

9                   “(B) MINIMIZATION OF RISK TO THE GOV-  
10           ERNMENT.—In making the determination of the  
11           cost of the loan for purposes of setting the pay-  
12           ment for a standby loan under subparagraph  
13           (A), the Secretary and the Office of Manage-  
14           ment and Budget shall take into consideration  
15           the extent to which the minimum price and the  
16           cap price reflect historical patterns of volatility  
17           in actual oil prices relative to projections of fu-  
18           ture oil prices, based upon publicly available  
19           data from the Energy Information Administra-  
20           tion, and employing statistical methods and  
21           analyses that are appropriate for the analysis of  
22           volatility in energy prices.

23                   “(C) TREATMENT OF PAYMENTS.—The  
24           value to the United States of a payment under  
25           subparagraph (A) and any profit-sharing pay-

1           ments under paragraph (3) shall be taken into  
2           account for purposes of section 502(5)(B)(iii) of  
3           the Federal Credit Reform Act of 1990 in de-  
4           termining the cost to the Federal Government  
5           of a standby loan made under this subsection.

6           “(5) OTHER PROVISIONS.—

7                   “(A) NO DOUBLE BENEFIT.—A project re-  
8           ceiving a loan under this subsection may not,  
9           during the primary term of the loan agreement,  
10          receive a Federal loan guarantee under sub-  
11          section (a) of this section, or under other laws.

12                   “(B) SUBROGATION, ETC.—Subsections  
13          (g)(2) (relating to subrogation), (h) (relating to  
14          fees), and (j) (relating to full faith and credit)  
15          shall apply to standby loans under this sub-  
16          section to the same extent they apply to loan  
17          guarantees.”.

18   **SEC. 1304. RENEWABLE FUEL INFRASTRUCTURE DEVELOP-**  
19                   **MENT.**

20          (a) DEFINITION.—For purposes of this subtitle—

21                  (1) the term “renewable fuel” means E85  
22          biofuel, or B20;

23                  (2) the term “biofuel” means fuel produced en-  
24          tirely from biological material and determined by the

1 Department of Energy and the Environmental Pro-  
2 tection Agency to be commercially viable;

3 (3) the term “B20” means a mixture of bio-  
4 diesel and diesel fuel meeting the standard estab-  
5 lished by the American Society for Testing and Ma-  
6 terials or under section 211(u) of the Clean Air Act  
7 for fuel containing 20 percent biodiesel;

8 (4) the term “E85” means a fuel blend con-  
9 taining 85 percent denatured ethanol and 15 percent  
10 gasoline by volume;

11 (5) the term “flexible-fuel vehicle” means any  
12 motor vehicle warranted by the manufacturer of the  
13 vehicle as capable of operating on gasoline or diesel  
14 fuel and on—

15 (A) E85; or

16 (B) B20; and

17 (6) the term “motor vehicle” means, as defined  
18 in regulations promulgated by the Administrator of  
19 the Environmental Protection Agency that are in ef-  
20 fect on the date of enactment of this Act—

21 (A) a light-duty truck;

22 (B) a light-duty vehicle; or

23 (C) medium-duty passenger vehicle,

24 that is designed to be propelled by gasoline or diesel  
25 fuel.

1 (b) INFRASTRUCTURE DEVELOPMENT GRANTS.—

2 The Secretary of Energy shall establish a program for  
3 making grants for providing assistance to retail and  
4 wholesale motor fuel dealers or other entities for the in-  
5 stallation, replacement, or conversion of motor fuel storage  
6 and dispensing infrastructure to be used exclusively to  
7 store and dispense renewable fuel. Such infrastructure  
8 may include equipment used in the blending, distribution,  
9 and transport of such fuels.

10 (c) RETAIL TECHNICAL AND MARKETING ASSIST-

11 ANCE.—The Secretary of Energy shall enter into contracts  
12 with entities with demonstrated experience in assisting re-  
13 tail fueling stations in installing refueling systems and  
14 marketing renewable fuels nationally, for the provision of  
15 technical and marketing assistance to recipients of grants  
16 under this section. Such assistance shall include—

17 (1) technical advice for compliance with applica-  
18 ble Federal and State environmental requirements;

19 (2) help in identifying supply sources and se-  
20 curing long-term contracts; and

21 (3) provision of public outreach, education, and  
22 labeling materials.

23 (d) ALLOCATION.—The Secretary of Energy may re-  
24 serve funds appropriated for carrying out this section to  
25 support renewable fuels infrastructure development

1 projects with a cost of greater than \$1,000,000, that are  
2 of national significance. The Secretary shall reserve funds  
3 appropriated for the renewable fuels infrastructure devel-  
4 opment grant program for technical and marketing assist-  
5 ance described in subsection (c).

6 (e) SELECTION CRITERIA.—Not later than 12  
7 months after the date of enactment of this Act, the Sec-  
8 retary shall establish criteria for evaluating applications  
9 for grants under this section that will maximize the avail-  
10 ability and use of renewable fuel, and that will ensure that  
11 renewable fuel is available across the country. Such cri-  
12 teria shall provide for—

13 (1) consideration of the public demand for each  
14 renewable fuel in a particular geographic area based  
15 on State registration records showing the number of  
16 flexible-fuel vehicles;

17 (2) consideration of the opportunity to create or  
18 expand corridors of renewable fuel stations along  
19 interstate or State highways;

20 (3) consideration of the experience of each ap-  
21 plicant with previous, similar projects;

22 (4) consideration of population, number of flexi-  
23 ble-fuel vehicles, number of retail fuel outlets, and  
24 saturation of flexible-fuel vehicles; and

25 (5) priority consideration to applications that—

1 (A) are most likely to maximize displace-  
2 ment of petroleum consumption, measured as a  
3 total quantity and a percentage;

4 (B) are best able to incorporate existing  
5 infrastructure while maximizing, to the extent  
6 practicable, the use of renewable fuels; and

7 (C) demonstrate the greatest commitment  
8 on the part of the applicant to ensure funding  
9 for the proposed project and the greatest likeli-  
10 hood that the project will be maintained or ex-  
11 panded after Federal assistance under this sec-  
12 tion is completed.

13 (f) COMBINED APPLICATIONS.—States and local gov-  
14 ernment entities and nonprofit entities may apply for as-  
15 sistance under this section on behalf of a group of retailers  
16 within a certain geographic area, or to carry out regional  
17 or multistate deployment projects. Any such application  
18 shall certify the availability and details of a program to  
19 match the Federal grant as required under subsection (g)  
20 and list the retail locations that would receive the funds.

21 (g) LIMITATIONS.—Assistance provided under this  
22 section shall not exceed—

23 (1) 33 percent of the estimated cost of the in-  
24 stallation, replacement, or conversion of motor fuel  
25 storage and dispensing infrastructure; or

1           (2) \$180,000 for a combination of equipment at  
2           any one retail outlet location.

3           (h) OPERATION OF RENEWABLE FUEL STATIONS.—

4   The Secretary shall establish rules that set forth require-  
5   ments for grant recipients under this section that include  
6   providing to the public the renewable fuel, establishing a  
7   marketing plan that informs consumers of the price and  
8   availability of the renewable fuel, clearly labeling the dis-  
9   pensers and related equipment, and providing periodic re-  
10   ports on the status of the renewable fuel sales, the type  
11   and amount of the renewable fuel dispensed at each loca-  
12   tion, and the average price of such fuel.

13          (i) NOTIFICATION REQUIREMENTS.—Not later than  
14   the date on which each renewable fuel station begins to  
15   offer renewable fuel to the public, the grant recipient that  
16   used grant funds to construct or upgrade such station  
17   shall notify the Secretary of Energy of such opening. The  
18   Secretary of Energy shall add each new renewable fuel  
19   station to the renewable fuel station locator on its Website  
20   when it receives notification under this subsection.

21          (j) INELIGIBILITY.—Any person receiving a credit  
22   may not receive assistance under this section.

23          (k) AUTHORIZATION OF APPROPRIATIONS.—There  
24   are authorized to be appropriated to the Secretary of En-



1 ergy for carrying out this section \$200,000,000 for each  
2 of the fiscal years 2008 through 2014.

3 (l) RESTRICTION.—No grant shall be provided under  
4 this section to a large, vertically integrated oil company.

5 **SEC. 1305. PROHIBITION ON FRANCHISE AGREEMENT RE-**  
6 **STRICTIONS RELATED TO RENEWABLE FUEL**  
7 **INFRASTRUCTURE.**

8 (a) IN GENERAL.—Title I of the Petroleum Mar-  
9 keting Practices Act (15 U.S.C. 2801 et seq.) is amended  
10 by adding at the end the following:

11 **“SEC. 107. PROHIBITION ON RESTRICTION OF INSTALLA-**  
12 **TION OF RENEWABLE FUEL PUMPS.**

13 “(a) DEFINITION.—In this section:

14 “(1) RENEWABLE FUEL.—The term ‘renewable  
15 fuel’ means any fuel—

16 “(A) at least 85 percent of the volume of  
17 which consists of ethanol; or

18 “(B) any mixture of biodiesel and diesel or  
19 renewable diesel (as defined in regulations  
20 adopted pursuant to section 211(o) of the Clean  
21 Air Act (40 C.F.R., Part 80)), determined with-  
22 out regard to any use of kerosene and con-  
23 taining at least 20 percent biodiesel or renew-  
24 able diesel.

1           “(2) FRANCHISE-RELATED DOCUMENT.—The  
2       term ‘franchise-related document’ means—

3           “(A) a franchise under this Act; and

4           “(B) any other contract or directive of a  
5       franchisor relating to terms or conditions of the  
6       sale of fuel by a franchisee.

7       “(b) PROHIBITIONS.—

8           “(1) IN GENERAL.—No franchise-related docu-  
9       ment entered into or renewed on or after the date  
10      of enactment of this section shall contain any provi-  
11      sion allowing a franchisor to restrict the franchisee  
12      or any affiliate of the franchisee from—

13           “(A) installing on the marketing premises  
14      of the franchisee a renewable fuel pump or  
15      tank, except that the franchisee’s franchisor  
16      may restrict the installation of a tank on leased  
17      marketing premises of such franchisor;

18           “(B) converting an existing tank or pump  
19      on the marketing premises of the franchisee for  
20      renewable fuel use, so long as such tank or  
21      pump and the piping connecting them are ei-  
22      ther warranted by the manufacturer or certified  
23      by a recognized standards setting organization  
24      to be suitable for use with such renewable fuel;

1           “(C) advertising (including through the  
2           use of signage) the sale of any renewable fuel;

3           “(D) selling renewable fuel in any specified  
4           area on the marketing premises of the  
5           franchisee (including any area in which a name  
6           or logo of a franchisor or any other entity ap-  
7           pears);

8           “(E) purchasing renewable fuel from  
9           sources other than the franchisor if the  
10          franchisor does not offer its own renewable fuel  
11          for sale by the franchisee;

12          “(F) listing renewable fuel availability or  
13          prices, including on service station signs, fuel  
14          dispensers, or light poles; or

15          “(G) allowing for payment of renewable  
16          fuel with a credit card,

17          so long as such activities described in subparagraphs  
18          (A) through (G) do not constitute mislabeling, mis-  
19          branding, willful adulteration, or other trademark  
20          violations by the franchisee.

21          “(2) EFFECT OF PROVISION.—Nothing in this  
22          section shall be construed to preclude a franchisor  
23          from requiring the franchisee to obtain reasonable  
24          indemnification and insurance policies.

1       “(c) EXCEPTION TO 3-GRADE REQUIREMENT.—No  
2 franchise-related document that requires that 3 grades of  
3 gasoline be sold by the applicable franchisee shall prevent  
4 the franchisee from selling an renewable fuel in lieu of  
5 1, and only 1, grade of gasoline.”.

6       (b) ENFORCEMENT.—Section 105 of the Petroleum  
7 Marketing Practices Act (15 U.S.C. 2805) is amended by  
8 striking “102 or 103” each place it appears and inserting  
9 “102, 103, or 107”.

10       (c) CONFORMING AMENDMENTS.—

11           (1) IN GENERAL.—Section 101(13) of the Pe-  
12 troleum Marketing Practices Act (15 U.S.C.  
13 2801(13)) is amended by aligning the margin of  
14 subparagraph (C) with subparagraph (B).

15           (2) TABLE OF CONTENTS.—The table of con-  
16 tents of the Petroleum Marketing Practices Act (15  
17 U.S.C. 2801 note) is amended—

18                   (A) by inserting after the item relating to  
19 section 106 the following:

“Sec. 107. Prohibition on restriction of installation of renewable fuel pumps.”;  
and

20                   (B) by striking the item relating to section  
21 202 and inserting the following:

“Sec. 202. Automotive fuel rating testing and disclosure requirements.”.

1 **SEC. 1306. RENEWABLE FUEL DISPENSER REQUIREMENTS.**

2 (a) MARKET PENETRATION REPORTS.—The Sec-  
3 retary of Energy, in consultation with the Secretary of  
4 Transportation, shall determine and report to Congress  
5 annually on the market penetration for flexible-fuel vehi-  
6 cles in use within geographic regions to be established by  
7 the Secretary of Energy.

8 (b) DISPENSER FEASIBILITY STUDY.—Not later  
9 than 24 months after the date of enactment of this Act,  
10 the Secretary of Energy, in consultation with the Depart-  
11 ment of Transportation, shall report to the Congress on  
12 the feasibility of requiring motor fuel retailers to install  
13 E-85 compatible dispensers and related systems at retail  
14 fuel facilities in regions where flexible-fuel vehicle market  
15 penetration has reached 15 percent of motor vehicles. In  
16 conducting such study, the Secretary shall consider and  
17 report on the following factors:

18 (1) The commercial availability of E-85 fuel  
19 and the number of competing E-85 wholesale sup-  
20 pliers in a given region.

21 (2) The level of financial assistance provided on  
22 an annual basis by the Federal Government, State  
23 governments, and nonprofit entities for the installa-  
24 tion of E-85 compatible infrastructure.

1           (3) The number of retailers whose retail loca-  
2           tions are unable to support more than 2 under-  
3           ground storage tank dispensers.

4           (4) The expense incurred by retailers in the in-  
5           stallation and sale of E-85 compatible dispensers  
6           and related systems and any potential effects on the  
7           price of motor vehicle fuel.

8   **SEC. 1307. PIPELINE FEASIBILITY STUDY.**

9           (a) IN GENERAL.—The Secretary of Energy, in con-  
10          sultation with the Secretary of Transportation, shall con-  
11          duct a study of the feasibility of the construction of dedi-  
12          cated ethanol pipelines.

13          (b) FACTORS.—In conducting the study, the Sec-  
14          retary shall consider—

15               (1) the quantity of ethanol production that  
16               would make dedicated pipelines economically viable;

17               (2) existing or potential barriers to dedicated  
18               ethanol pipelines, including technical, siting, financ-  
19               ing, and regulatory barriers;

20               (3) market risk (including throughput risk) and  
21               means of mitigating the risk;

22               (4) regulatory, financing, and siting options  
23               that would mitigate risk in those areas and help en-  
24               sure the construction of 1 or more dedicated ethanol  
25               pipelines;

1           (5) financial incentives that may be necessary  
2           for the construction of dedicated ethanol pipelines,  
3           including the return on equity that sponsors of the  
4           initial dedicated ethanol pipelines will require to in-  
5           vest in the pipelines;

6           (6) technical factors that may compromise the  
7           safe transportation of ethanol in pipelines, identi-  
8           fying remedial and preventative measures to ensure  
9           pipeline integrity; and

10          (7) such other factors as the Secretary con-  
11          siders appropriate.

12          (c) REPORT.—Not later than 15 months after the  
13          date of enactment of this Act, the Secretary shall submit  
14          to Congress a report describing the results of the study  
15          conducted under this section.

16       **SEC. 1308. STUDY OF ETHANOL-BLENDED GASOLINE WITH**  
17               **GREATER LEVELS OF ETHANOL.**

18          (a) IN GENERAL.—The Administrator of the Envi-  
19          ronmental Protection Agency, in cooperation with the Sec-  
20          retary of Energy and the Secretary of Transportation, and  
21          after providing notice and an opportunity for public com-  
22          ment, shall conduct a study of the feasibility of widespread  
23          utilization in the United States of ethanol blended gasoline  
24          with levels of ethanol greater than 10 percent.

1 (b) STUDY.—The study under subsection (a) shall in-  
2 clude—

3 (1) a review of production and infrastructure  
4 constraints on increasing the consumption of eth-  
5 anol;

6 (2) an evaluation of the economic, market, and  
7 energy impacts of State and regional differences in  
8 ethanol blends;

9 (3) an evaluation of the economic, market, and  
10 energy impacts on gasoline retailers and consumers  
11 of separate and distinctly labeled fuel storage facili-  
12 ties and dispensers;

13 (4) an evaluation of the environmental impacts  
14 of mid-level ethanol blends on evaporative and ex-  
15 haust emissions from on-road, off-road and marine  
16 engines, recreational boats, vehicles, and equipment;

17 (5) an evaluation of the impacts of mid-level  
18 ethanol blends on the operation, durability, and per-  
19 formance of on-road, off-road, and marine engines,  
20 recreational boats, vehicles, and equipment; and

21 (6) an evaluation of the safety impacts of mid-  
22 level ethanol blends on consumers that own and op-  
23 erate off-road and marine engines, recreational  
24 boats, vehicles, or equipment.



1 (c) REPORT.—Not later than 24 months after the  
2 date of enactment of this Act, the Administrator shall sub-  
3 mit to the Committee on Energy and Commerce of the  
4 House of Representatives and the Committee on Environ-  
5 ment and Public Works of the Senate a report describing  
6 the results of the study conducted under this section.

7 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
8 are authorized to be appropriated to the Administrator  
9 such sums as may be necessary for the completion of the  
10 study required under this section.

11 **SEC. 1309. STUDY OF THE ADEQUACY OF TRANSPOR-**  
12 **TATION, DISTRIBUTION, AND RETAIL DIS-**  
13 **PENSING OF DOMESTICALLY-PRODUCED RE-**  
14 **NEWABLE FUEL.**

15 (a) STUDY.—

16 (1) IN GENERAL.—The Secretary of Energy  
17 shall conduct a study of the adequacy of transpor-  
18 tation, distribution, and retail dispensing of domesti-  
19 cally-produced renewable fuel.

20 (2) COMPONENTS.—In conducting the study  
21 under paragraph (1), the Secretary shall consider—

22 (A) the adequacy of, and appropriate loca-  
23 tion for tracks, fuel terminals and retail dis-  
24 pensing facilities that have sufficient capacity,  
25 and are in the appropriate condition, to move

1 the necessary quantities of domestically-pro-  
2 duced renewable fuel;

3 (B) the adequacy of the supply of equip-  
4 ment and personnel to move the necessary  
5 quantities of domestically-produced renewable  
6 fuel in a timely fashion;

7 (C)(i) the projected costs of transporting,  
8 distributing, and dispensing the domestically-  
9 produced renewable fuel; and

10 (ii) the impact of the projected costs on  
11 the marketability of the domestically-produced  
12 renewable fuel;

13 (D) whether there is adequate competition  
14 to ensure—

15 (i) a fair price for transportation, dis-  
16 tribution, and retail dispensing of domesti-  
17 cally-produced renewable fuel; and

18 (ii) acceptable levels of service for  
19 transportation, distribution, and retail dis-  
20 pensing of domestically-produced renewable  
21 fuel;

22 (E) any infrastructure capital investments  
23 that are needed to transport, distribute, and  
24 dispense domestically-produced renewable fuel;

1           (F) whether Federal agencies have ade-  
2           quate legal authority to ensure a fair and rea-  
3           sonable transportation price and acceptable lev-  
4           els of service in cases in which the domestically  
5           produced renewable fuel source does not have  
6           access to competitive transportation service;

7           (G) whether Federal agencies have ade-  
8           quate legal authority to address transportation,  
9           distribution and retail dispensing problems that  
10          may be resulting in inadequate supplies of do-  
11          mestically-produced renewable fuel in any area  
12          of the United States; and

13          (H) any recommendations for any addi-  
14          tional legal authorities for Federal agencies to  
15          ensure the reliable transportation, distribution,  
16          and retail dispensing of adequate supplies of  
17          domestically-produced renewable fuel at reason-  
18          able prices.

19          (b) REPORT.—Not later than 180 days after the date  
20          of enactment of this Act, the Secretary shall submit to  
21          the Committee on Energy and Natural Resources of the  
22          Senate and the Committee on Energy and Commerce of  
23          the House of Representatives a report that describes the  
24          results of the study conducted under subsection (a).

1   **SEC. 1310. STANDARD SPECIFICATIONS FOR BIODIESEL.**

2           Section 211 of the Clean Air Act (42 U.S.C. 7545)  
3 is amended by redesignating subsection (s) as subsection  
4 (t), redesignating subsection (r) (relating to conversion as-  
5 sistance for cellulosic biomass, waste-derived ethanol, ap-  
6 proved renewable fuels) as subsection (s) and by adding  
7 the following new subsection at the end thereof:

8           “(u) STANDARD SPECIFICATIONS FOR BIODIESEL.—  
9 Unless the American Society for Testing and Materials  
10 has adopted a standard for diesel fuel containing 20 per-  
11 cent biodiesel, not later than 1 year after the date of en-  
12 actment of this subsection, the Administrator shall initiate  
13 a rulemaking establishing a series of uniform per gallon  
14 fuel standards for categories of fuels that contain bio-  
15 diesel, including one standard for fuel containing 20 per-  
16 cent biodiesel, and designate an identification number for  
17 fuel meeting each standard in each such category so that  
18 vehicle manufacturers are able to design engines to use  
19 fuel meeting one or more of such standards. The Adminis-  
20 trator shall finalize the standards under this subsection  
21 18 months after the date of the enactment of this sub-  
22 section.”.

23   **SEC. 1311. GRANTS FOR CELLULOSIC ETHANOL PRODUC-**  
24                           **TION.**

25           Subsection (s) of section 211 of the Clean Air Act  
26 (as added by section 1512 of the Energy Policy Act of

1 2005) (and as redesignated by section 1311 of this Act),  
2 relating to conversion assistance for cellulosic biomass,  
3 waste-derived ethanol, and approved renewable fuels, is  
4 amended as follows:

5 (1) By adding the following new subparagraphs  
6 at the end of paragraph (3):

7 “(D) \$500,000,000 for fiscal year 2009.

8 “(E) \$500,000,000 for fiscal year 2010.”.

9 (2) By adding the following new paragraph at  
10 the end thereof:

11 “(5) CRITERIA.—In awarding grants under this  
12 section, the Secretary shall give priority to applica-  
13 tions that promote feedstock diversity and the geo-  
14 graphic dispersion of production facilities.”.

15 **SEC. 1312. CONSUMER EDUCATION CAMPAIGN RELATING**  
16 **TO FLEXIBLE-FUEL VEHICLES.**

17 The Secretary of Transportation, in consultation with  
18 the Secretary of Energy, shall carry out an education pro-  
19 gram to inform consumers about which motor vehicles are  
20 flexible-fuel vehicles and how to exercise their opportunity  
21 to choose E85 or B20. As part of such program, the Sec-  
22 retary of Transportation may coordinate with motor vehi-  
23 cle manufacturers to notify owners of flexible-fuel vehicles  
24 of locations where E85 and B20 are sold in their area.

1 **SEC. 1313. DOMESTIC MANUFACTURING CONVERSION**  
2 **GRANT PROGRAM.**

3 Section 712 of the Energy Policy Act of 2005 (42  
4 U.S.C. 16062) is amended—

5 (1) in subsection (a)—

6 (A) by inserting “, flexible-fuel,” after  
7 “production of efficient hybrid”; and

8 (B) by adding at the end the following:

9 “Priority shall be given to the refurbishment or  
10 retooling of manufacturing facilities that have  
11 recently ceased operation or will cease operation  
12 in the near future.”; and

13 (2) by striking subsection (b) and inserting the  
14 following:

15 “(b) COORDINATION WITH STATE AND LOCAL PRO-  
16 GRAMS.—The Secretary may coordinate implementation of  
17 this section with State and local programs designed to ac-  
18 complish similar goals, including the retention and retrain-  
19 ing of skilled workers from the such manufacturing facili-  
20 ties, including by establishing matching grant arrange-  
21 ments.

22 “(c) AUTHORIZATION OF APPROPRIATIONS.—There  
23 are authorized to be appropriated to the Secretary such  
24 \$90,000,000 to carry out this section.”.

1 **SEC. 1314. CELLULOSIC ETHANOL AND BIOFUELS RE-**  
2 **SEARCH.**

3       There are authorized to be appropriated to the Sec-  
4 retary of Energy \$50,000,000 for fiscal year 2008, to re-  
5 main available until expended, for cellulosic ethanol and  
6 biofuels research and development grants to 10 entities  
7 from among 1890 land grant colleges, Historically Black  
8 Colleges or Universities, Tribal serving institutions, or  
9 Hispanic serving institutions, selected by the Secretary of  
10 Energy to receive a grant under this section through a  
11 peer-reviewed competitive process. The selected entities  
12 shall then collaborate with one of the Department of Ener-  
13 gy's Office of Science Bioenergy Research Centers.

14 **SEC. 1315. GRANTS FOR RENEWABLE FUEL PRODUCTION**  
15 **RESEARCH AND DEVELOPMENT IN CERTAIN**  
16 **STATES.**

17       (a) IN GENERAL.—The Secretary shall provide  
18 grants to eligible entities to conduct research into, and de-  
19 velop and implement, renewable fuel production tech-  
20 nologies in States with low rates of ethanol production,  
21 including low rates of production of cellulosic biomass eth-  
22 anol, as determined by the Secretary.

23       (b) ELIGIBILITY.—To be eligible to receive a grant  
24 under the section, an entity shall—

25               (1)(A) be an institution of higher education (as  
26 defined in section 2 of the Energy Policy Act of

1       2005 (42 U.S.C. 15801)) located in a State de-  
2       scribed in subsection (a);

3       (B) be an institution—

4               (i) referred to in section 532 of the Equity  
5       in Educational Land-Grant Status Act of 1994  
6       (Public Law 103-382; 7 U.S.C. 301 note);

7               (ii) that is eligible for a grant under the  
8       Tribally Controlled College or University Assist-  
9       ance Act of 1978 (25 U.S.C. 1801 et seq.), in-  
10      cluding Dine College; or

11              (iii) that is eligible for a grant under the  
12      Navajo Community College Act (25 U.S.C.  
13      640a et seq.); or

14      (C) be a consortium of such institutions of  
15      higher education, industry, State agencies, Indian  
16      tribal agencies, or local government agencies located  
17      in the State; and

18      (2) have proven experience and capabilities with  
19      relevant technologies.

20      (c) AUTHORIZATION OF APPROPRIATIONS.—There  
21      are authorized to be appropriated to carry out this section  
22      \$25,000,000 for each of fiscal years 2008 through 2010.

23      **SEC. 1316. STUDY OF EFFECT OF OIL PRICES.**

24      The Secretary of Energy shall conduct a study to re-  
25      view the anticipated effects on renewable fuels production



1 if oil were priced no lower than \$40 per barrel. The Sec-  
2 retary shall report the findings of such study to Congress  
3 by December 31, 2008.

4 **SEC. 1317. BIODIESEL AS ALTERNATIVE FUEL FOR CAFÉ**  
5 **PURPOSES.**

6 Section 32901(a) of title 49, United States Code, is  
7 amended—

8 (1) in paragraph (1), by redesignating subpara-  
9 graphs (J) and (K) as subparagraphs (K) and (L),  
10 respectively, and inserting after subparagraph (I)  
11 the following:

12 “(J) B20 biodiesel blend;” and

13 (2) by redesignating paragraphs (7) through  
14 (16) as paragraphs (9) through (18), respectively,  
15 and insert after paragraph (6) the following:

16 “(7) ‘biodiesel’ means the monoalkyl esters of  
17 long chain fatty acids derived from plant or animal  
18 matter which meet—

19 “(A) the registration requirements for  
20 fuels and fuel additives established by the Envi-  
21 ronmental Protection Agency under section 211  
22 of the Clean Air Act (42 U.S.C. 7545); and

23 “(B) the requirements of the American So-  
24 ciety of Testing and Materials D6751.

1           “(8) ‘B20 biodiesel blend’ means a mixture of  
2       biodiesel and diesel fuel approximately 20 percent of  
3       the content of which is biodiesel, and commonly  
4       known as ‘B20’.”.

5       **PART 2—UNITED STATES-ISRAEL ENERGY**  
6                           **COOPERATION**

7       **SEC. 1331. SHORT TITLE.**

8       This part may be cited as the “United States-Israel  
9       Energy Cooperation Act”.

10      **SEC. 1332. FINDINGS.**

11      Congress finds that—

12           (1) it is in the highest national security inter-  
13       ests of the United States to ensure secure access to  
14       reliable energy sources;

15           (2) the United States relies heavily on the for-  
16       eign supply of crude oil to meet the energy needs of  
17       the United States, currently importing 58 percent of  
18       the total oil requirements of the United States, of  
19       which 45 percent comes from member states of the  
20       Organization of Petroleum Exporting Countries  
21       (OPEC);

22           (3) revenues from the sale of oil by some of  
23       these countries directly or indirectly provide funding  
24       for terrorism and propaganda hostile to the values  
25       of the United States and the West;

1           (4) in the past, these countries have manipu-  
2           lated the dependence of the United States on the oil  
3           supplies of these countries to exert undue influence  
4           on United States policy, as during the embargo of  
5           OPEC during 1973 on the sale of oil to the United  
6           States, which became a major factor in the ensuing  
7           recession;

8           (5) research by the Energy Information Admin-  
9           istration of the Department of Energy has shown  
10          that the dependence of the United States on foreign  
11          oil will increase by 33 percent over the next 20  
12          years;

13          (6) a rise in the price of imported oil sufficient  
14          to increase gasoline prices by 10 cents per gallon at  
15          the pump would result in an additional outflow of  
16          \$18,000,000,000 from the United States to oil-ex-  
17          porting nations;

18          (7) for economic and national security reasons,  
19          the United States should reduce, as soon as prac-  
20          ticable, the dependence of the United States on na-  
21          tions that do not share the interests and values of  
22          the United States;

23          (8) the State of Israel has been a steadfast ally  
24          and a close friend of the United States since the cre-  
25          ation of Israel in 1948;

1           (9) like the United States, Israel is a democracy  
2           that holds civil rights and liberties in the highest re-  
3           gard and is a proponent of the democratic values of  
4           peace, freedom, and justice;

5           (10) cooperation between the United States and  
6           Israel on such projects as the development of the  
7           Arrow Missile has resulted in mutual benefits to  
8           United States and Israeli security;

9           (11) the special relationship between Israel and  
10          the United States has been and continues to be  
11          manifested in a variety of jointly-funded cooperative  
12          programs in the field of scientific research and de-  
13          velopment, such as—

14                 (A) the United States-Israel Binational  
15                 Science Foundation (BSF);

16                 (B) the Israel-United States Binational  
17                 Agricultural Research and Development Fund  
18                 (BARD); and

19                 (C) the Israel-United States Binational In-  
20                 dustrial Research and Development (BIRD)  
21                 Foundation;

22          (12) these programs, supported by the match-  
23          ing contributions from the Government of Israel and  
24          the Government of the United States and directed  
25          by key scientists and academics from both countries,

1        have made possible many scientific breakthroughs in  
2        the fields of life sciences, medicine, bioengineering,  
3        agriculture, biotechnology, communications, and oth-  
4        ers;

5            (13) on February 1, 1996, United States Sec-  
6        retary of Energy Hazel R. O'Leary and Israeli Min-  
7        ister of Energy and Infrastructure Gonen Segev  
8        signed the Agreement Between the Department of  
9        Energy of the United States of America and the  
10       Ministry of Energy and Infrastructure of Israel Con-  
11       cerning Energy Cooperation, to establish a frame-  
12       work for collaboration between the United States  
13       and Israel in energy research and development ac-  
14       tivities;

15           (14) the United States and Israeli governments  
16        should promote cooperation in a broad range of  
17        projects designed to enhance supplies of nonpetro-  
18       leum energy for both countries, and to provide for  
19       cutting edge research in each country;

20           (15) Israeli scientists and researchers have long  
21        been at the forefront of research and development in  
22        the field of alternative renewable energy sources;

23           (16) many of the top corporations of the world  
24        have recognized the technological and scientific ex-

1       pertise of Israel by locating important research and  
2       development facilities in Israel;

3           (17) among the technological breakthroughs  
4       made by Israeli scientists and researchers in the  
5       field of alternative, renewable energy sources are—

6           (A) the development of a cathode that uses  
7       hexavalent iron salts that accept 3 electrons per  
8       ion and enable rechargeable batteries to provide  
9       3 times as much electricity as existing recharge-  
10      able batteries;

11          (B) the development of a technique that  
12      vastly increases the efficiency of using solar en-  
13      ergy to generate hydrogen for use in energy  
14      cells; and

15          (C) the development of a novel membrane  
16      used in new and powerful direct-oxidant fuel  
17      cells that is capable of competing favorably with  
18      hydrogen fuel cells and traditional internal com-  
19      bustion engines; and

20          (18) cooperation between the United States and  
21      Israel in the field of research and development of al-  
22      ternative renewable energy sources would be in the  
23      interests of both countries, and both countries stand  
24      to gain much from such cooperation.

1   **SEC. 1333. GRANT PROGRAM.**

2           (a) **AUTHORITY.**—Pursuant to the responsibilities de-  
3   scribed in section 102(10), (14), and (17) of the Depart-  
4   ment of Energy Organization Act (42 U.S.C. 7112(10),  
5   (14), and (17)) and section 103(9) of the Energy Reorga-  
6   nization Act of 1974 (42 U.S.C. 5813(9)), the Secretary,  
7   in consultation with the BIRD or BSF, shall award grants  
8   to eligible entities.

9           (b) **APPLICATION.**—

10           (1) **SUBMISSION OF APPLICATIONS.**—To receive  
11   a grant under this section, an eligible entity shall  
12   submit an application to the Secretary containing  
13   such information and assurances as the Secretary, in  
14   consultation with the BIRD or BSF, may require.

15           (2) **SELECTION OF ELIGIBLE ENTITIES.**—The  
16   Secretary, in consultation with the Directors of the  
17   BIRD and BSF, may review any application sub-  
18   mitted by any eligible entity and select any eligible  
19   entity meeting criteria established by the Secretary,  
20   in consultation with the Advisory Board, for a grant  
21   under this section.

22           (c) **AMOUNT OF GRANT.**—The amount of each grant  
23   awarded for a fiscal year under this section shall be deter-  
24   mined by the Secretary, in consultation with the BIRD  
25   or BSF.

26           (d) **RECOUPMENT.**—

1           (1) IN GENERAL.—Not later than 180 days  
2       after the date of enactment of this Act, the Sec-  
3       retary shall establish procedures and criteria for  
4       recoupment in connection with any eligible project  
5       carried out by an eligible entity that receives a grant  
6       under this section, which has led to the development  
7       of a product or process which is marketed or used.

8           (2) AMOUNT REQUIRED.—

9           (A) Except as provided in subparagraph  
10       (B), such recoupment shall be required as a  
11       condition for award and be proportional to the  
12       Federal share of the costs of such project, and  
13       shall be derived from the proceeds of royalties  
14       or licensing fees received in connection with  
15       such product or process.

16          (B) In the case where a product or process  
17       is used by the recipient of a grant under this  
18       section for the production and sale of its own  
19       products or processes, the recoupment shall  
20       consist of a payment equivalent to the payment  
21       which would be made under subparagraph (A).

22          (3) WAIVER.—The Secretary may at any time  
23       waive or defer all or some of the recoupment re-  
24       quirements of this subsection as necessary, depend-  
25       ing on—



1 (A) the commercial competitiveness of the  
2 entity or entities developing or using the prod-  
3 uct or process;

4 (B) the profitability of the project; and

5 (C) the commercial viability of the product  
6 or process utilized.

7 (e) PRIVATE FUNDS.—The Secretary may accept  
8 contributions of funds from private sources to carry out  
9 this part.

10 (f) OFFICE OF ENERGY EFFICIENCY AND RENEW-  
11 ABLE ENERGY.—The Secretary shall carry out this sec-  
12 tion through the existing programs at the Office of Energy  
13 Efficiency and Renewable Energy.

14 (g) REPORT.—Not later than 180 days after receiv-  
15 ing a grant under this section, each recipient shall submit  
16 a report to the Secretary—

17 (1) documenting how the recipient used the  
18 grant funds; and

19 (2) evaluating the level of success of each  
20 project funded by the grant.

21 **SEC. 1334. INTERNATIONAL ENERGY ADVISORY BOARD.**

22 (a) ESTABLISHMENT.—There is established in the  
23 Department of Energy an International Energy Advisory  
24 Board.

1 (b) DUTIES.—The Advisory Board shall advise the  
2 Secretary on—

3 (1) criteria for the recipients of grants awarded  
4 under section 1333(a);

5 (2) the total amount of grant money to be  
6 awarded to all grantees selected by the Secretary, in  
7 consultation with the BIRD; and

8 (3) the total amount of grant money to be  
9 awarded to all grantees selected by the Secretary, in  
10 consultation with the BSF, for each fiscal year.

11 (c) MEMBERSHIP.—

12 (1) COMPOSITION.—The Advisory Board shall  
13 be composed of—

14 (A) 1 member appointed by the Secretary  
15 of Commerce;

16 (B) 1 member appointed by the Secretary  
17 of Energy; and

18 (C) 2 members who shall be Israeli citi-  
19 zens, appointed by the Secretary of Energy  
20 after consultation with appropriate officials in  
21 the Israeli Government.

22 (2) DEADLINE FOR APPOINTMENTS.—The ini-  
23 tial appointments under paragraph (1) shall be  
24 made not later than 60 days after the date of enact-  
25 ment of this Act.

1           (3) TERM.—Each member of the Advisory  
2 Board shall be appointed for a term of 4 years.

3           (4) VACANCIES.—A vacancy on the Advisory  
4 Board shall be filled in the manner in which the  
5 original appointment was made.

6           (5) BASIC PAY.—

7                 (A) COMPENSATION.—A member of the  
8 Advisory Board shall serve without pay.

9                 (B) TRAVEL EXPENSES.—Each member of  
10 the Advisory Board shall receive travel ex-  
11 penses, including per diem in lieu of subsist-  
12 ence, in accordance with applicable provisions of  
13 subchapter I of chapter 57 of title 5, United  
14 States Code.

15           (6) QUORUM.—Three members of the Advisory  
16 Board shall constitute a quorum.

17           (7) CHAIRPERSON.—The Chairperson of the  
18 Advisory Board shall be designated by the Secretary  
19 of Energy at the time of the appointment.

20           (8) MEETINGS.—The Advisory Board shall  
21 meet at least once annually at the call of the Chair-  
22 person.

23           (d) TERMINATION.—Section 14(a)(2)(B) of the Fed-  
24 eral Advisory Committee Act (5 U.S.C. App.) shall not  
25 apply to the Advisory Board.

1 **SEC. 1335. DEFINITIONS.**

2 In this part:

3 (1) **ADVISORY BOARD.**—The term “Advisory  
4 Board” means the International Energy Advisory  
5 Board established by section 1334(a).

6 (2) **BIRD.**—The term “BIRD” means the  
7 Israel-United States Binational Industrial Research  
8 and Development Foundation.

9 (3) **BSF.**—The term “BSF” means the United  
10 States-Israel Binational Science Foundation.

11 (4) **ELIGIBLE ENTITY.**—The term “eligible enti-  
12 ty” means a joint venture comprised of both Israeli  
13 and United States private business entities or a joint  
14 venture comprised of both Israeli academic persons  
15 (who reside and work in Israel) and United States  
16 academic persons, that—

17 (A) carries out an eligible project; and

18 (B) is selected by the Secretary, in con-  
19 sultation with the BIRD or BSF, using the cri-  
20 teria established by the Secretary, in consulta-  
21 tion with the Advisory Board.

22 (5) **ELIGIBLE PROJECT.**—The term “eligible  
23 project” means a project to encourage cooperation  
24 between the United States and Israel on research,  
25 development, or commercialization of alternative en-

1       ergy, improved energy efficiency, or renewable en-  
2       ergy sources.

3           (6) SECRETARY.—The term “Secretary” means  
4       the Secretary of Energy, acting through the Assist-  
5       ant Secretary of Energy for Energy Efficiency and  
6       Renewable Energy.

7   **SEC. 1336. TERMINATION.**

8       The grant program authorized under section 1333  
9       and the Advisory Board shall terminate upon the expira-  
10      tion of the 7-year period which begins on the date of the  
11      enactment of this Act.

12   **SEC. 1337. AUTHORIZATION OF APPROPRIATIONS.**

13      The Secretary is authorized to expend not more than  
14      \$20,000,000 to carry out this part for each of fiscal years  
15      2008 through 2014 from funds previously authorized to  
16      the Office of Energy Efficiency and Renewable Energy.

17   **SEC. 1338. CONSTITUTIONAL AUTHORITY.**

18      The Constitutional authority on which this part rests  
19      is the power of Congress to regulate commerce with for-  
20      eign nations as enumerated in Article I, Section 8 of the  
21      United States Constitution.

1     **Subtitle E—Advanced Battery and**  
2             **Plug-In Hybrid Programs**

3     **SEC. 1401. ADVANCED BATTERY LOAN GUARANTEE PRO-**  
4             **GRAM.**

5             (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
6     of Energy shall establish a program to provide guarantees  
7     of loans by private institutions for the construction of fa-  
8     cilities for the manufacture of advanced vehicle batteries  
9     and battery systems that are developed and produced in  
10    the United States, including advanced lithium ion bat-  
11    teries and hybrid electrical system and component manu-  
12    facturers and software designers.

13            (b) REQUIREMENTS.—The Secretary may provide a  
14    loan guarantee under subsection (a) to an applicant if—

15                (1) without a loan guarantee, credit is not  
16            available to the applicant under reasonable terms or  
17            conditions sufficient to finance the construction of a  
18            facility described in subsection (a);

19                (2) the prospective earning power of the appli-  
20            cant and the character and value of the security  
21            pledged provide a reasonable assurance of repayment  
22            of the loan to be guaranteed in accordance with the  
23            terms of the loan; and

24                (3) the loan bears interest at a rate determined  
25            by the Secretary to be reasonable, taking into ac-

1       count the current average yield on outstanding obli-  
2       gations of the United States with remaining periods  
3       of maturity comparable to the maturity of the loan.

4       (c) CRITERIA.—In selecting recipients of loan guar-  
5       antees from among applicants, the Secretary shall give  
6       preference to proposals that—

7               (1) meet all applicable Federal and State per-  
8       mitting requirements;

9               (2) are most likely to be successful; and

10              (3) are located in local markets that have the  
11       greatest need for the facility.

12       (d) MATURITY.—A loan guaranteed under subsection  
13       (a) shall have a maturity of not more than 20 years.

14       (e) TERMS AND CONDITIONS.—The loan agreement  
15       for a loan guaranteed under subsection (a) shall provide  
16       that no provision of the loan agreement may be amended  
17       or waived without the consent of the Secretary.

18       (f) ASSURANCE OF REPAYMENT.—The Secretary  
19       shall require that an applicant for a loan guarantee under  
20       subsection (a) provide an assurance of repayment in the  
21       form of a performance bond, insurance, collateral, or other  
22       means acceptable to the Secretary in an amount equal to  
23       not less than 20 percent of the amount of the loan.

24       (g) GUARANTEE FEE.—The recipient of a loan guar-  
25       antee under subsection (a) shall pay the Secretary an

1 amount determined by the Secretary, including defaults,  
2 to be sufficient to cover the administrative costs of the  
3 Secretary relating to the loan guarantee.

4 (h) FULL FAITH AND CREDIT.—The full faith and  
5 credit of the United States is pledged to the payment of  
6 all guarantees made under this section. Any such guar-  
7 antee made by the Secretary shall be conclusive evidence  
8 of the eligibility of the loan for the guarantee with respect  
9 to principal and interest. The validity of the guarantee  
10 shall be incontestable in the hands of a holder of the guar-  
11 anteed loan.

12 (i) REPORTS.—Until each guaranteed loan under this  
13 section has been repaid in full, the Secretary shall annu-  
14 ally submit to Congress a report on the activities of the  
15 Secretary under this section.

16 (j) AUTHORIZATION OF APPROPRIATIONS.—There  
17 are authorized to be appropriated such sums as are nec-  
18 essary to carry out this section.

19 (k) TERMINATION OF AUTHORITY.—The authority of  
20 the Secretary to issue a loan guarantee under subsection  
21 (a) terminates on the date that is 10 years after the date  
22 of enactment of this Act.



1 **SEC. 1402. DOMESTIC MANUFACTURING CONVERSION**  
2 **GRANT PROGRAM.**

3 Section 712 of the Energy Policy Act of 2005 (42  
4 U.S.C. 16062) is amended—

5 (1) in subsection (a)—

6 (A) by inserting “and components thereof”  
7 after “sales of efficient hybrid and advanced  
8 diesel vehicles”;

9 (B) by inserting “and hybrid component  
10 manufacturers” after “grants to automobile  
11 manufacturers”;

12 (C) by inserting “, plug-in electric hybrid,”  
13 after “production of efficient hybrid”;

14 (D) by inserting “and suppliers” after  
15 “automobile manufacturers”; and

16 (E) by adding at the end the following:  
17 “Priority shall be given to the refurbishment or  
18 retooling of manufacturing facilities that have  
19 recently ceased operation or will cease operation  
20 in the near future.”; and

21 (2) by striking subsection (b) and inserting the  
22 following:

23 “(b) COORDINATION WITH STATE AND LOCAL PRO-  
24 GRAMS.—The Secretary may coordinate implementation of  
25 this section with State and local programs designed to ac-  
26 complish similar goals, including the retention and retrain-

1 ing of skilled workers from the such manufacturing facili-  
2 ties, including by establishing matching grant arrange-  
3 ments.

4 “(c) AUTHORIZATION OF APPROPRIATIONS.—There  
5 are authorized to be appropriated to the Secretary  
6 \$90,000,000 to carry out this section.”.

7 **SEC. 1403. INCENTIVE FOR FEDERAL AND STATE FLEETS**  
8 **FOR MEDIUM AND HEAVY DUTY HYBRIDS.**

9 Section 301 of the Energy Policy Act of 1992 (42  
10 U.S.C. 13211) is amended—

11 (1) in paragraph (3), by striking “or a dual  
12 fueled vehicle” and inserting “, a dual fueled vehicle,  
13 or a medium or heavy duty vehicle that is a hybrid  
14 vehicle”;

15 (2) by redesignating paragraphs (11), (12),  
16 (13), and (14) as paragraphs (12), (14), (15), and  
17 (16), respectively;

18 (3) by inserting after paragraph (10) the fol-  
19 lowing new paragraph:

20 “(11) the term ‘hybrid vehicle’ means a vehicle  
21 powered both by a diesel or gasoline engine and an  
22 electric motor or hydraulic energy storage device  
23 that is recharged as the vehicle operates;” and

1 (4) by inserting after paragraph (12) (as so re-  
2 designated by paragraph (2) of this section) the fol-  
3 lowing new paragraph:

4 “(13) the term ‘medium or heavy duty vehicle’  
5 means a vehicle that—

6 “(A) in the case of a medium duty vehicle,  
7 has a gross vehicle weight rating of more than  
8 8,500 pounds but not more than 14,000  
9 pounds; and

10 “(B) in the case of a heavy duty vehicle,  
11 has a gross vehicle weight rating of more than  
12 14,000 pounds;”.

13 **SEC. 1404. INCLUSION OF ELECTRIC DRIVE IN ENERGY**  
14 **POLICY ACT OF 1992.**

15 Section 508 of the Energy Policy Act of 1992 (42  
16 U.S.C. 13258) is amended—

17 (1) by striking “The Secretary” in subsection  
18 (a) and inserting “(1) The Secretary”; and

19 (2) by adding at the end of subsection (a) the  
20 following:

21 “(2) Not later than January 31, 2009, the Secretary  
22 shall allocate credit in an amount to be determined by the  
23 Secretary for acquisition of—

24 “(A) a hybrid electric vehicle;

25 “(B) a plug-in hybrid electric vehicle;

1 “(C) a fuel cell electric vehicle;

2 “(D) a neighborhood electric vehicle; or

3 “(E) a medium-duty or heavy-duty electric, hy-  
4 brid electric, hybrid hydraulic, or plug-in hybrid elec-  
5 tric vehicle.”; and

6 (3) by adding at the end the following:

7 “(e) DEFINITIONS.—In this section:

8 “(1) FUEL CELL ELECTRIC VEHICLE.—The  
9 term ‘fuel cell electric vehicle’ means an on-road or  
10 nonroad vehicle that uses a fuel cell (as defined in  
11 section 803 of the Spark M. Matsunaga Hydrogen  
12 Research, Development, and Demonstration Act of  
13 2005 (42 U.S.C. 16152).

14 “(2) HYBRID ELECTRIC VEHICLE.—The term  
15 ‘hybrid electric vehicle’ means a new qualified hybrid  
16 motor vehicle (as defined in section 30B(d)(3) of the  
17 Internal Revenue Code of 1986).

18 “(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC,  
19 HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC  
20 VEHICLE.—The term ‘medium-duty or heavy-duty  
21 electric, hybrid electric, or plug-in hybrid electric ve-  
22 hicle’ is an electric, hybrid electric, or plug-in hybrid  
23 electric motor vehicle greater than 8,501 pounds  
24 gross vehicle rating.

1 “(4) NEIGHBORHOOD ELECTRIC VEHICLE.—

2 The term ‘neighborhood electric vehicle’ means a 4-  
3 wheeled on-road or nonroad vehicle, with a top at-  
4 tainable speed in 1 mile of more than 20 mph and  
5 not more than 25 mph on a paved level surface, that  
6 is propelled by an electric motor and on board, re-  
7 chargeable energy storage system that is recharge-  
8 able using an off-board source of electricity.

9 “(5) PLUG-IN HYBRID ELECTRIC VEHICLE.—

10 The term ‘plug-in hybrid electric vehicle’ means a  
11 light-duty, medium-duty, or heavy-duty on-road or  
12 nonroad vehicle that is propelled by any combination  
13 of—

14 “(A) an electric motor and on-board, re-  
15 chargeable energy storage system capable of op-  
16 erating the vehicle in intermittent or continuous  
17 all-electric mode and which is rechargeable  
18 using an off-board source of electricity; and

19 “(B) an internal combustion engine or  
20 heat engine using any combustible fuel.”.

21 **SEC. 1405. STUDYING THE BENEFITS OF PLUG-IN HYBRID**  
22 **ELECTRIC DRIVE VEHICLES AND ELECTRIC**  
23 **DRIVE TRANSPORTATION.**

24 (a) STUDY.—Not later than 1 year after the date of  
25 enactment of this section, the Secretary of Transportation

1 in consultation with the Secretary of Energy and appro-  
2 priate Federal agencies and interested stakeholders in the  
3 public, private and non-profit sectors, shall study and re-  
4 port to Congress on the benefits of and barriers to the  
5 widespread use of a potentially new class of vehicles known  
6 as city cars with performance capability that exceeds that  
7 of low speed vehicles but is less than that of passenger  
8 vehicles, and which may be battery electric, fuel cell elec-  
9 tric, or plug-in hybrid electric vehicles. Such study shall  
10 examine the benefits and issues associated with limiting  
11 city cars to a maximum speed of 35 mph, 45 mph, 55  
12 mph, or any other maximum speed, and make a rec-  
13 ommendation regarding maximum speed.

14 (b) DEFINITIONS.—In this section—

15 (1) NONROAD VEHICLE.—The term “nonroad  
16 vehicle” has the meaning given that term in section  
17 216 of the Clean Air Act (42 U.S.C. 7550)), or vehi-  
18 cles of the same classification that are fully or par-  
19 tially powered by an electric motor powered by a fuel  
20 cell, a battery, or an off-board source of electricity.

21 (2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The  
22 term “plug-in electric drive vehicle” means a means  
23 a light-duty, medium-duty, or heavy-duty on-road or  
24 nonroad battery electric, hybrid or fuel cell vehicle

1       that can be recharged from an external electricity  
2       source for motive power.

3           (3) PLUG-IN HYBRID ELECTRIC VEHICLE.—The  
4       term “plug-in hybrid electric vehicle” means a light-  
5       duty, medium-duty, or heavy-duty on-road or  
6       nonroad vehicle that is propelled by any combination  
7       of—

8           (A) an electric motor and on-board, re-  
9       chargeable energy storage system capable of op-  
10      erating the vehicle in intermittent or continuous  
11      all-electric mode and which is rechargeable  
12      using an off-board source of electricity; and

13          (B) an internal combustion engine or heat  
14      engine using any combustible fuel.

15   **SEC. 1406. PLUG-IN HYBRID VEHICLE PROGRAM.**

16      (a) ESTABLISHMENT.—The Secretary of Energy (in  
17   this section referred to as the “Secretary”) shall establish  
18   a competitive program to provide grants on a cost-shared  
19   basis to State governments, local governments, metropoli-  
20   tan transportation authorities, air pollution control dis-  
21   tricts, private or nonprofit entities or combinations there-  
22   of, to carry out a project or projects to encourage the use  
23   of plug-in electric drive vehicles or other emerging electric  
24   vehicle technologies, as determined by the Secretary.

1 (b) ADMINISTRATION.—The Secretary shall establish  
2 requirements for applications for grants under this sec-  
3 tion, including reporting of data to be summarized for dis-  
4 semination to the Department, other grantees, and the  
5 public, including vehicle and component performance and  
6 vehicle and component life cycle costs.

7 (c) SELECTION CRITERIA.—

8 (1) PRIORITY.—When making awards under  
9 this section, the Secretary shall give priority consid-  
10 eration to applications that encourage early wide-  
11 spread utilization of such vehicles and are likely to  
12 make a significant contribution to the advancement  
13 of the production of such vehicles in the United  
14 States.

15 (2) SCOPE OF PROGRAMS.—When making  
16 awards under this section, the Secretary shall ensure  
17 that the programs will maximize diversity in applica-  
18 tions, manufacturers, end-uses and vehicle control  
19 systems.

20 (d) AUTHORIZATIONS OF APPROPRIATIONS.—There  
21 are authorized to be appropriated to the Secretary to carry  
22 out the program under this section, \$60,000,000, to re-  
23 main available until expended.

24 (e) CERTAIN APPLICANTS.—A battery manufacturer  
25 that proposes to supply to an applicant for a grant under



1 this section a battery with a capacity of greater than 1  
2 kilowatt-hour for use in a plug-in electric drive vehicle  
3 shall—

4 (1) ensure that the applicant includes in the ap-  
5 plication a description of the price of the battery per  
6 kilowatt hour;

7 (2) on approval by the Secretary of the applica-  
8 tion, publish, or permit the Secretary to publish, the  
9 price described in subparagraph (A); and

10 (3) for any order received by the battery manu-  
11 facturer for at least 1,000 batteries, offer batteries  
12 at that price.

13 **SEC. 1407. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION**  
14 **DEPLOYMENT PROGRAM.**

15 (a) REVOLVING LOAN PROGRAM.—

16 (1) IN GENERAL.—The Secretary shall establish  
17 a revolving loan program to provide loans to eligible  
18 entities for the conduct of qualified electric transpor-  
19 tation projects.

20 (2) CRITERIA.—The Secretary shall establish  
21 criteria for the provision of loans under this sub-  
22 section.

23 (b) MARKET ASSESSMENT AND ELECTRICITY USAGE  
24 PROGRAM.—

1           (1) IN GENERAL.—The Administrator of the  
2       Environmental Protection Agency, in consultation  
3       with the Secretary and private industry, shall carry  
4       out a program—

5           (A) to inventory and analyze existing elec-  
6       tric drive transportation technologies and hy-  
7       brid technologies and markets; and

8           (B) to identify and implement methods of  
9       removing barriers for existing and emerging ap-  
10      plications of electric drive transportation tech-  
11      nologies and hybrid transportation technologies.

12          (2) ELECTRICITY USAGE.—The Secretary, in  
13      consultation with the Administrator of the Environ-  
14      mental Protection Agency and private industry, shall  
15      carry out a program—

16          (A) to develop systems and processes—

17              (i) to enable plug-in electric vehicles  
18              to enhance the availability of emergency  
19              back-up power for consumers; and

20              (ii) to study and demonstrate the po-  
21              tential value to the electric grid of using  
22              the energy stored in the on-board storage  
23              systems to improve the efficiency of the  
24              grid generation system; and

1 (B) to work with utilities and other inter-  
2 ested stakeholders to study and demonstrate  
3 the implications of the introduction of plug-in  
4 electric vehicles and other types of electric  
5 transportation on the production of electricity  
6 from renewable resources.

7 (3) OFF-PEAK ELECTRICITY USAGE GRANTS.—  
8 In carrying out the program under paragraph (2),  
9 the Secretary shall provide grants to assist eligible  
10 public and private electric utilities to conduct pro-  
11 grams or activities to encourage owners of electric  
12 drive transportation technologies—

13 (A) to use off-peak electricity; or

14 (B) to have the load managed by the util-  
15 ity.

16 (c) DEFINITION OF QUALIFIED ELECTRIC TRANS-  
17 PORTATION PROJECT.—In this section, the term “quali-  
18 fied electric transportation project” includes a project re-  
19 lating to—

20 (1) ship-side or shore-side electrification for  
21 vessels;

22 (2) truck-stop electrification;

23 (3) electric truck refrigeration units;

24 (4) battery-powered auxiliary power units for  
25 trucks;

- 1 (5) electric airport ground support equipment;
- 2 (6) electric material/cargo handling equipment;
- 3 (7) electric or dual-mode electric freight rail;
- 4 (8) any distribution upgrades needed to supply
- 5 electricity to the qualified electric transportation
- 6 projects; and
- 7 (9) any ancillary infrastructure, including panel
- 8 upgrades, battery chargers, in-situ transformer, and
- 9 trenching.

10 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
11 are authorized to carry this section \$90,000,000 for each  
12 of the fiscal years 2008 through 2011.

## 13 **Subtitle A—Energy Market Study**

### 14 **SEC. 1501. FINDINGS.**

15 The Congress finds that—

16 (1) the Energy Information Administration's  
17 data is critical not merely for analysis of the role of  
18 energy in our economy and environment, but for the  
19 effective functioning of domestic and international  
20 energy markets.

21 (2) Federal and State policymakers rely on the  
22 Energy Information Administration to collect and  
23 report State level energy information needed for en-  
24 ergy policymaking, compliance with Federal and

1 State mandates, and for purposes of emergency en-  
2 ergy preparedness and response;

3 (3) as policymakers consider and implement  
4 policies to cut greenhouse gas emissions, accurate,  
5 timely, and comparable State energy information be-  
6 comes even more important;

7 (4) new and expanded sources of information  
8 about energy demand and supply have become avail-  
9 able and need to be incorporated in the Energy In-  
10 formation Administration's data and analysis func-  
11 tions;

12 (5) the Energy Information Administration  
13 needs to maintain and enhance its ability to collect,  
14 process, and analyze data while confronting broader  
15 demands for information in greater detail; and

16 (6) budget and personnel constraints have  
17 forced the Energy Information Administration to  
18 curtail surveys relied upon by energy and financial  
19 markets and could further defer important improve-  
20 ments in the scope and quality of resulting informa-  
21 tion.

22 **SEC. 1502. ASSESSMENT OF RESOURCES.**

23 (a) 5-YEAR PLAN.—The Administrator of the Energy  
24 Information Administration shall establish a 5-year plan  
25 to enhance the quality and scope of the data collection nec-

1    essary to ensure the scope, accuracy, and timeliness of the  
2    information needed for efficient functioning of energy  
3    markets and related financial operations. Particular atten-  
4    tion shall be paid to restoring data series terminated be-  
5    cause of budget constraints, data on demand response,  
6    timely data series of State-level information, improve-  
7    ments in the area of oil and gas data, and the ability to  
8    provide data mandated by Congress promptly and com-  
9    pletely.

10       (b) SUBMITTAL TO CONGRESS.—The Administrator  
11    shall submit this plan to Congress detailing improvements  
12    needed to enhance the Energy Information Administra-  
13    tion’s ability to collect and process energy information in  
14    a manner consistent with the needs of energy markets.

15       (c) GUIDELINES.—The Administrator shall—

16           (1) establish guidelines to ensure the quality,  
17       comparability, and scope of State energy data, in-  
18       cluding data on energy production and consumption  
19       by product and sector and renewable and alternative  
20       sources, required to provide a comprehensive, accu-  
21       rate energy profile at the State level;

22           (2) share company-level data collected at the  
23       State level with the State involved, provided the  
24       State has agreed to reasonable guidelines for its use  
25       adopted by the Administrator;

1           (3) assess any existing gaps in data obtained by  
2           and compiled by the Energy Information Adminis-  
3           tration; and

4           (4) evaluate the most cost effective ways to ad-  
5           dress any data quality and quantity issues in con-  
6           junction with State officials.

7   The Energy Information Administration shall consult with  
8   State officials and the Federal Energy Regulatory Com-  
9   mission on a regular basis in establishing these guidelines  
10   and scope of State level data, as well as in exploring ways  
11   to address data needs and serve data uses.

12       (d) ASSESSMENT OF STATE DATA NEEDS.—The Ad-  
13   ministrator shall provide an assessment of these State-  
14   level data needs to the Congress not later than 1 year after  
15   the date of enactment of this Act, detailing a plan to ad-  
16   dress the needs identified.

17       (e) AUTHORIZATION OF APPROPRIATIONS.—There  
18   are authorized to be appropriated to the Administrator for  
19   carrying out this section, in addition to any other author-  
20   izations—

- 21           (1) \$10,000,000 for fiscal year 2008;  
22           (2) \$10,000,000 for fiscal year 2009;  
23           (3) \$10,000,000 for fiscal year 2010;  
24           (4) \$15,000,000 for fiscal year 2011;  
25           (5) \$20,000,000 for fiscal year 2012; and

1 (6) such sums as are necessary for subsequent  
2 fiscal years.

3 **TITLE II—SCIENCE AND**  
4 **TECHNOLOGY**  
5 **Subtitle A—Geothermal Energy**

6 **SEC. 2001. SHORT TITLE.**

7 This subtitle may be cited as the “Advanced Geo-  
8 thermal Energy Research and Development Act of 2007”.

9 **SEC. 2002. DEFINITIONS.**

10 For purposes of this subtitle:

11 (1) ENGINEERED.—When referring to enhanced  
12 geothermal systems, the term “engineered” means  
13 subjected to intervention, including intervention to  
14 address one or more of the following issues:

15 (A) Lack of effective permeability or poros-  
16 ity or open fracture connectivity within the res-  
17 ervoir.

18 (B) Insufficient contained geofluid in the  
19 reservoir.

20 (C) A low average geothermal gradient,  
21 which necessitates deeper drilling.

22 (2) ENHANCED GEOTHERMAL SYSTEMS.—The  
23 term “enhanced geothermal systems” means geo-  
24 thermal reservoir systems that are engineered, as op-  
25 posed to occurring naturally.



1           (3) GEOFLUID.—The term “geofluid” means  
2           any fluid used to extract thermal energy from the  
3           Earth which is transported to the surface for direct  
4           use or electric power generation, except that such  
5           term shall not include oil or natural gas.

6           (4) GEOPRESSURED RESOURCES.—The term  
7           “geopressured resources” mean geothermal deposits  
8           found in sedimentary rocks under higher than nor-  
9           mal pressure and saturated with gas or methane.

10          (5) GEOTHERMAL.—The term “geothermal” re-  
11          fers to heat energy stored in the Earth’s crust that  
12          can be accessed for direct use or electric power gen-  
13          eration.

14          (6) HYDROTHERMAL.—The term “hydro-  
15          thermal” refers to naturally occurring subsurface  
16          reservoirs of hot water or steam.

17          (7) SECRETARY.—The term “Secretary” means  
18          the Secretary of Energy.

19          (8) SYSTEMS APPROACH.—The term “systems  
20          approach” means an approach to solving problems  
21          or designing systems that attempts to optimize the  
22          performance of the overall system, rather than a  
23          particular component of the system.

1 **SEC. 2003. HYDROTHERMAL RESEARCH AND DEVELOP-**  
2 **MENT.**

3 (a) IN GENERAL.—The Secretary shall support pro-  
4 grams of research, development, demonstration, and com-  
5 mercial application to expand the use of geothermal en-  
6 ergy production from hydrothermal systems, including the  
7 programs described in subsection (b).

8 (b) PROGRAMS.—

9 (1) ADVANCED HYDROTHERMAL RESOURCE  
10 TOOLS.—The Secretary, in consultation with other  
11 appropriate agencies, shall support a program to de-  
12 velop advanced geophysical, geochemical, and geo-  
13 logic tools to assist in locating hidden hydrothermal  
14 resources, and to increase the reliability of site char-  
15 acterization before, during, and after initial drilling.  
16 The program shall develop new prospecting tech-  
17 niques to assist in prioritization of targets for char-  
18 acterization. The program shall include a field com-  
19 ponent.

20 (2) INDUSTRY COUPLED EXPLORATORY DRILL-  
21 ING.—The Secretary shall support a program of  
22 cost-shared field demonstration programs, to be pur-  
23 sued, simultaneously and independently, in collabo-  
24 ration with industry partners, for the demonstration  
25 of technologies and techniques of siting and explor-  
26 atory drilling for undiscovered resources in a variety

1 of geologic settings. The program shall include in-  
2 centives to encourage the use of advanced tech-  
3 nologies and techniques.

4 **SEC. 2004. GENERAL GEOTHERMAL SYSTEMS RESEARCH**  
5 **AND DEVELOPMENT.**

6 (a) SUBSURFACE COMPONENTS AND SYSTEMS.—The  
7 Secretary shall support a program of research, develop-  
8 ment, demonstration, and commercial application of com-  
9 ponents and systems capable of withstanding extreme geo-  
10 thermal environments and necessary to cost-effectively de-  
11 velop, produce, and monitor geothermal reservoirs and  
12 produce geothermal energy. These components and sys-  
13 tems shall include advanced casing systems (expandable  
14 tubular casing, low-clearance casing designs, and others),  
15 high-temperature cements, high-temperature submersible  
16 pumps, and high-temperature packers, as well as tech-  
17 nologies for under-reaming, multilateral completions,  
18 high-temperature logging, and logging while drilling.

19 (b) RESERVOIR PERFORMANCE MODELING.—The  
20 Secretary shall support a program of research, develop-  
21 ment, demonstration, and commercial application of mod-  
22 els of geothermal reservoir performance, with an emphasis  
23 on accurately modeling performance over time. Models  
24 shall be developed to assist both in the development of geo-  
25 thermal reservoirs and to more accurately account for

1 stress-related effects in stimulated hydrothermal and en-  
2 hanced geothermal systems production environments.

3 (c) ENVIRONMENTAL IMPACTS.—The Secretary  
4 shall—

5 (1) support a program of research, develop-  
6 ment, demonstration, and commercial application of  
7 technologies and practices designed to mitigate or  
8 preclude potential adverse environmental impacts of  
9 geothermal energy development, production or use,  
10 and seek to ensure that geothermal energy develop-  
11 ment is consistent with the highest practicable  
12 standards of environmental stewardship; and

13 (2) in conjunction with the Assistant Adminis-  
14 trator for Research and Development at the Envi-  
15 ronmental Protection Agency, support a research  
16 program to identify potential environmental impacts  
17 of geothermal energy development, production, and  
18 use, and ensure that the program described in para-  
19 graph (1) addresses such impacts, including effects  
20 on groundwater and local hydrology.

21 Any potential environmental impacts identified as part of  
22 the development, production, and use of geothermal en-  
23 ergy shall be measured and examined against the potential  
24 emissions offsets of greenhouses gases gained by geo-  
25 thermal energy development, production, and use.

1 **SEC. 2005. ENHANCED GEOTHERMAL SYSTEMS RESEARCH**  
2 **AND DEVELOPMENT.**

3 (a) IN GENERAL.—The Secretary shall support a  
4 program of research, development, demonstration, and  
5 commercial application for enhanced geothermal systems,  
6 including the programs described in subsection (b).

7 (b) PROGRAMS.—

8 (1) ENHANCED GEOTHERMAL SYSTEMS TECH-  
9 NOLOGIES.—The Secretary shall support a program  
10 of research, development, demonstration, and com-  
11 mercial application of the technologies and knowl-  
12 edge necessary for enhanced geothermal systems to  
13 advance to a state of commercial readiness, includ-  
14 ing advances in—

15 (A) reservoir stimulation;

16 (B) reservoir characterization, monitoring,  
17 and modeling;

18 (C) stress mapping;

19 (D) tracer development;

20 (E) three-dimensional tomography;

21 (F) understanding seismic effects of res-  
22 ervoir engineering and stimulation; and

23 (G) laser-based drilling technology.

24 (2) ENHANCED GEOTHERMAL SYSTEMS RES-  
25 ERVOIR STIMULATION.—

1           (A) PROGRAM.—In collaboration with in-  
2           dustry partners, the Secretary shall support a  
3           program of research, development, and dem-  
4           onstration of enhanced geothermal systems res-  
5           ervoir stimulation technologies and techniques.  
6           A minimum of 5 sites shall be selected in loca-  
7           tions that show particular promise for enhanced  
8           geothermal systems development. Each site  
9           shall—

10                   (i) represent a different class of sub-  
11                   surface geologic environments; and

12                   (ii) take advantage of an existing site  
13                   where subsurface characterization has been  
14                   conducted or existing drill holes can be uti-  
15                   lized, if possible.

16           (B) CONSIDERATION OF EXISTING  
17           SITES.—The following 2 sites, where Depart-  
18           ment of Energy and industry cooperative en-  
19           hanced geothermal systems projects are already  
20           underway, may be considered for inclusion  
21           among the sites selected under subparagraph  
22           (A):

23                   (i) Desert Peak, Nevada.

24                   (ii) Coso, California.

1   **SEC. 2006. GEOTHERMAL ENERGY PRODUCTION FROM OIL**  
2                   **AND GAS FIELDS AND RECOVERY AND PRO-**  
3                   **DUCTION OF GEOPRESSURED GAS RE-**  
4                   **SOURCES.**

5       (a) IN GENERAL.—The Secretary shall establish a  
6 program of research, development, demonstration, and  
7 commercial application to support development of geo-  
8 thermal energy production from oil and gas fields and pro-  
9 duction and recovery of energy from geopressured re-  
10 sources. In addition, the Secretary shall conduct such sup-  
11 porting activities including research, resource character-  
12 ization, and technology development as necessary.

13       (b) GEOTHERMAL ENERGY PRODUCTION FROM OIL  
14 AND GAS FIELDS.—The Secretary shall implement a  
15 grant program in support of geothermal energy production  
16 from oil and gas fields. The program shall include grants  
17 for a total of not less than three demonstration projects  
18 of the use of geothermal techniques such as organic  
19 rankine cycle systems at marginal, unproductive, and pro-  
20 ductive oil and gas wells. The Secretary shall, to the extent  
21 practicable and in the public interest, make awards that—

22           (1) include not less than five oil or gas well  
23 sites per project award;

24           (2) use a range of oil or gas well hot water  
25 source temperatures from 150 degrees Fahrenheit to  
26 300 degrees Fahrenheit;

- 1           (3) cover a range of sizes up to one megawatt;
- 2           (4) are located at a range of sites;
- 3           (5) can be replicated at a wide range of sites;
- 4           (6) facilitate identification of optimum tech-
- 5           niques among competing alternatives;
- 6           (7) include business commercialization plans
- 7           that have the potential for production of equipment
- 8           at high volumes and operation and support at a
- 9           large number of sites; and
- 10          (8) satisfy other criteria that the Secretary de-
- 11          termines are necessary to carry out the program and
- 12          collect necessary data and information.

13 The Secretary shall give preference to assessments that  
14 address multiple elements contained in paragraphs (1)  
15 through (8).

16       (c) GRANT AWARDS.—Each grant award for dem-  
17 onstration of geothermal technology such as organic  
18 rankine cycle systems at oil and gas wells made by the  
19 Secretary under subsection (b) shall include—

- 20           (1) necessary and appropriate site engineering
- 21           study;
- 22           (2) detailed economic assessment of site specific
- 23           conditions;
- 24           (3) appropriate feasibility studies to determine
- 25           whether the demonstration can be replicated;



1           (4) design or adaptation of existing technology  
2       for site specific circumstances or conditions;

3           (5) installation of equipment, service, and sup-  
4       port;

5           (6) operation for a minimum of one year and  
6       monitoring for the duration of the demonstration;  
7       and

8           (7) validation of technical and economic as-  
9       sumptions and documentation of lessons learned.

10       (d) GEOPRESSURED GAS RESOURCE RECOVERY AND  
11   PRODUCTION.—(1) The Secretary shall implement a pro-  
12   gram to support the research, development, demonstra-  
13   tion, and commercial application of cost-effective tech-  
14   niques to produce energy from geopressured resources sit-  
15   uated in and near the Gulf of Mexico.

16       (2) The Secretary shall solicit preliminary engineer-  
17   ing designs for geopressured resources production and re-  
18   covery facilities.

19       (3) Based upon a review of the preliminary designs,  
20   the Secretary shall award grants, which may be cost-  
21   shared, to support the detailed development and comple-  
22   tion of engineering, architectural and technical plans need-  
23   ed to support construction of new designs.

24       (4) Based upon a review of the final design plans  
25   above, the Secretary shall award cost-shared development

1 and construction grants for demonstration geopressured  
2 production facilities that show potential for economic re-  
3 covery of the heat, kinetic energy and gas resources from  
4 geopressured resources.

5 (e) COMPETITIVE GRANT SELECTION.—Not less than  
6 90 days after the date of the enactment of this Act, the  
7 Secretary shall conduct a national solicitation for applica-  
8 tions for grants under the programs outlined in sub-  
9 sections (b) and (d). Grant recipients shall be selected on  
10 a competitive basis based on criteria in the respective sub-  
11 section.

12 (f) WELL DRILLING.—No funds may be used under  
13 this section for the purpose of drilling new wells.

14 **SEC. 2007. GEOPOWERING AMERICA.**

15 (a) IN GENERAL.—The Secretary shall expand the  
16 Department of Energy’s GeoPowering the West program  
17 to extend its geothermal technology transfer activities  
18 throughout the entire United States. The program shall  
19 be renamed “GeoPowering America”. The program shall  
20 continue to be based in the Department of Energy office  
21 in Golden, Colorado.

22 (b) ADDITIONAL PURPOSES.—In addition to the  
23 other duties of GeoPowering the West, the new  
24 GeoPowering America program is authorized to serve as  
25 an information clearinghouse for the geothermal industry,

1 collecting and disseminating information on best practices  
2 in all areas related to developing and managing hydro-  
3 thermal resources, geothermal resources from oil and gas  
4 fields, enhanced geothermal systems resources, and  
5 geopressured resources. GeoPowering America shall collect  
6 and disseminate information on all subjects germane to  
7 the development and use of hydrothermal systems, geo-  
8 thermal systems from oil and gas fields, enhanced geo-  
9 thermal systems, and geopressured systems. Information  
10 for hydrothermal systems shall at a minimum include—  
11 (1) resource location;  
12 (2) reservoir characterization, monitoring, and  
13 modeling;  
14 (3) drilling techniques;  
15 (4) reservoir management techniques; and  
16 (5) technologies for electric power conversion or  
17 direct use of geothermal energy.

18 **SEC. 2008. EDUCATIONAL PILOT PROGRAM.**

19 The Secretary shall seek to award grant funding, on  
20 a competitive basis, to an institution of higher education  
21 for a geothermal-powered energy generation facility on the  
22 institution's campus. The purpose of the facility shall be  
23 to provide electricity and space heating. The facility shall  
24 also serve as an educational resource to students in rel-  
25 evant fields of study, and the data generated by the facility

1 shall be available to students and the general public. The  
2 total funding award shall not exceed \$2,000,000.

3 **SEC. 2009. REPORTS.**

4 (a) REPORTS ON ADVANCED USES OF GEOTHERMAL  
5 ENERGY.—Not later than 1 year, 3 years, and 5 years,  
6 after the date of enactment of this Act, the Secretary shall  
7 report to the Committee on Science and Technology of the  
8 House of Representatives and the Committee on Energy  
9 and Natural Resources of the Senate on advanced con-  
10 cepts and technologies to maximize the geothermal re-  
11 source potential of the United States. The reports shall  
12 include—

13 (1) the use of carbon dioxide as an alternative  
14 geofluid with potential carbon sequestration benefits;

15 (2) mineral recovery from geofluids;

16 (3) use of geothermal energy to produce hydro-  
17 gen;

18 (4) use of geothermal energy to produce  
19 biofuels;

20 (5) use of geothermal heat for oil recovery from  
21 oil shales and tar sands; and

22 (6) other advanced geothermal technologies, in-  
23 cluding advanced drilling technologies and advanced  
24 power conversion technologies.

1 (b) PROGRESS REPORTS.—(1) Not later than 36  
2 months after the date of enactment of this Act, the Sec-  
3 retary shall submit to the Committee on Science and Tech-  
4 nology of the House of Representatives and the Committee  
5 on Energy and Natural Resources of the Senate an in-  
6 terim report describing the progress made under this sub-  
7 title. At the end of 60 months, the Secretary shall submit  
8 to Congress a report on the results of projects undertaken  
9 under this subtitle and other such information the Sec-  
10 retary considers appropriate.

11 (2) As necessary, the Secretary shall report to the  
12 Congress on any legal, regulatory, or other barriers en-  
13 countered that hinder economic development of these re-  
14 sources, and provide recommendations on legislative or  
15 other actions needed to address such impediments.

16 **SEC. 2010. APPLICABILITY OF OTHER LAWS.**

17 Nothing in this subtitle shall be construed as waiving  
18 the applicability of any requirement under any environ-  
19 mental or other Federal or State law.

20 **SEC. 2011. AUTHORIZATION OF APPROPRIATIONS.**

21 There are authorized to be appropriated to the Sec-  
22 retary to carry out this subtitle \$80,000,000 for each of  
23 the fiscal years 2008 through 2012, of which \$20,000,000  
24 for each fiscal year shall be for carrying out section 2006.

1                   **Subtitle B—Biofuels**

2   **SEC. 2101. SHORT TITLE.**

3           This subtitle may be cited as the “Biofuels Research  
4 and Development Enhancement Act”.

5   **SEC. 2102. BIODIESEL.**

6           (a) BIODIESEL STUDY.—Not later than 180 days  
7 after the date of enactment of this Act, the Secretary shall  
8 submit to Congress a report on any research and develop-  
9 ment challenges inherent in increasing to 2.5 percent the  
10 proportion of diesel fuel sold in the United States that  
11 is biodiesel (within the meaning of section 211(o) of the  
12 Clean Air Act).

13          (b) MATERIALS FOR THE ESTABLISHMENT OF  
14 STANDARDS.—The Director of the National Institute of  
15 Standards and Technology shall make publicly available  
16 the physical property data and characterization of bio-  
17 diesel, as is defined in subsection (a), in order to encour-  
18 age the establishment of standards that will promote their  
19 utilization in the transportation and fuel delivery system.

20   **SEC. 2103. BIOGAS.**

21          Not later than 180 days after the date of enactment  
22 of this Act, the Secretary shall submit to Congress a re-  
23 port on any research and development challenges inherent  
24 in increasing to 5 percent of the transportation fuels sold

1 in the United States fuel with biogas or a blend of biogas  
2 and natural gas.

3 **SEC. 2104. GRANTS FOR BIOFUEL PRODUCTION RESEARCH**  
4 **AND DEVELOPMENT IN CERTAIN STATES.**

5 (a) IN GENERAL.—The Secretary shall provide  
6 grants to eligible entities for research, development, dem-  
7 onstration, and commercial application of biofuel produc-  
8 tion technologies other than ethanol production from corn,  
9 as determined by the Secretary.

10 (b) ELIGIBILITY.—To be eligible to receive a grant  
11 under this section, an entity shall—

12 (1)(A) be an institution of higher education (as  
13 defined in section 2 of the Energy Policy Act of  
14 2005 (42 U.S.C. 15801)) located in a State de-  
15 scribed in subsection (a); or

16 (B) be a consortium including at least 1 such  
17 institution of higher education, and industry, State  
18 agencies, Indian tribal agencies, National Labora-  
19 tories, or local government agencies located in the  
20 State; and

21 (2) have proven experience and capabilities with  
22 relevant technologies.

23 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
24 are authorized to be appropriated to the Secretary to carry

1 out this section \$25,000,000 for each of fiscal years 2008  
2 through 2010.

3 **SEC. 2105. BIOREFINERY ENERGY EFFICIENCY.**

4 Section 932 of Energy Policy Act of 2005 (42 U.S.C.  
5 16232), is amended by adding at the end the following  
6 new subsections:

7 “(g) BIOREFINERY ENERGY EFFICIENCY.—The Sec-  
8 retary shall establish a program of research, development,  
9 demonstration, and commercial application for increasing  
10 energy efficiency and reducing energy consumption in the  
11 operation of biorefinery facilities.

12 “(h) RETROFIT TECHNOLOGIES FOR THE DEVELOP-  
13 MENT OF ETHANOL FROM CELLULOSIC MATERIALS.—  
14 The Secretary shall establish a program of research, devel-  
15 opment, demonstration, and commercial application on  
16 technologies and processes to enable biorefineries that ex-  
17 clusively use corn grain or corn starch as a feedstock to  
18 produce ethanol to be retrofitted to accept a range of bio-  
19 mass, including lignocellulosic feedstocks.”.

20 **SEC. 2106. STUDY OF INCREASED CONSUMPTION OF ETH-**  
21 **ANOL-BLENDED GASOLINE WITH HIGHER**  
22 **LEVELS OF ETHANOL.**

23 (a) IN GENERAL.—The Secretary, in cooperation  
24 with the Secretary of Agriculture, the Administrator of the  
25 Environmental Protection Agency, and the Secretary of



1 Transportation, shall conduct a study of the methods of  
2 increasing consumption in the United States of ethanol-  
3 blended gasoline with levels of ethanol that are not less  
4 than 10 percent and not more than 40 percent.

5 (b) STUDY.—The study under subsection (a) shall in-  
6 clude—

7 (1) a review of production and infrastructure  
8 constraints on increasing consumption of ethanol;

9 (2) an evaluation of the environmental con-  
10 sequences of the ethanol blends described in sub-  
11 section (a) on evaporative and exhaust emissions  
12 from on-road, off-road, and marine vehicle engines;

13 (3) an evaluation of the consequences of the  
14 ethanol blends described in subsection (a) on the op-  
15 eration, durability, and performance of on-road, off-  
16 road, and marine vehicle engines; and

17 (4) an evaluation of the life cycle impact of the  
18 use of the ethanol blends described in subsection (a)  
19 on carbon dioxide and greenhouse gas emissions.

20 (c) REPORT.—Not later than 1 year after the date  
21 of enactment of this Act, the Secretary shall submit to  
22 Congress a report describing the results of the study con-  
23 ducted under this section.

1   **SEC. 2107. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED**  
2                   **VEHICLES TO USE E-85 FUEL.**

3           (a) IN GENERAL.—The Secretary, in consultation  
4 with the Secretary of Transportation, shall conduct a  
5 study of whether optimizing flexible fueled vehicles to op-  
6 erate using E-85 fuel would increase the fuel efficiency  
7 of flexible fueled vehicles.

8           (b) REPORT.—Not later than 180 days after the date  
9 of enactment of this Act, the Secretary shall submit to  
10 the Committee on Science and Technology of the House  
11 of Representatives the Committee on Energy and Natural  
12 Resources of the Senate a report that describes the results  
13 of the study under this section, including any rec-  
14 ommendations of the Secretary.

15   **SEC. 2108. STUDY OF ENGINE DURABILITY AND PERFORM-**  
16                   **ANCE ASSOCIATED WITH THE USE OF BIO-**  
17                   **DIESEL.**

18           (a) IN GENERAL.—Not later than 30 days after the  
19 date of enactment of this Act, the Secretary shall initiate  
20 a study on the effects of the use of biodiesel on the per-  
21 formance and durability of engines and engine systems.

22           (b) COMPONENTS.—The study under this section  
23 shall include—

24                   (1) an assessment of whether the use of bio-  
25 diesel lessens the durability and performance of con-  
26 ventional diesel engines and engine systems; and

1           (2) an assessment of the effects referred to in  
2       subsection (a) with respect to biodiesel blends at  
3       varying concentrations, including the following per-  
4       centage concentrations of biodiesel:

5           (A) 5 percent biodiesel.

6           (B) 10 percent biodiesel.

7           (C) 20 percent biodiesel.

8           (D) 30 percent biodiesel.

9           (E) 100 percent biodiesel.

10       (c) REPORT.—Not later than 24 months after the  
11       date of enactment of this Act, the Secretary shall submit  
12       to the Committee on Science and Technology of the House  
13       of Representatives the Committee on Energy and Natural  
14       Resources of the Senate a report that describes the results  
15       of the study under this section, including any rec-  
16       ommendations of the Secretary.

17       **SEC. 2109. BIOENERGY RESEARCH AND DEVELOPMENT, AU-**  
18       **THORIZATION OF APPROPRIATION.**

19       (a) Section 931 of the Energy Policy Act of 2005 (42  
20       U.S.C. 16231) is amended—

21           (1) in subsection (b)—

22           (A) at the end of paragraph (2) by striking  
23           “and”;

24           (B) at the end of paragraph (3) by striking  
25           the period and inserting “; and”; and

1 (C) by adding at the end the following new  
2 paragraph:

3 “(4) \$963,000,000 for fiscal year 2010.”; and  
4 (2) in subsection (c)—

5 (A) in paragraph (2), by striking  
6 “\$251,000,000” and inserting “\$377,000,000”;

7 (B) in paragraph (3), by striking  
8 “\$274,000,000” and inserting “\$398,000,000”;  
9 and

10 (C) by adding at the end the following new  
11 paragraph:

12 “(4) \$419,000,000 for fiscal year 2010, of  
13 which \$150,000,00 shall be for section 932(d).”.

14 **SEC. 2110. ENVIRONMENTAL RESEARCH AND DEVELOP-**  
15 **MENT.**

16 (a) AMENDMENTS.—Section 977 of the Energy Pol-  
17 icy Act of 2005 (42 U.S.C. 16317) is amended—

18 (1) in subsection (a)(1), by striking “and com-  
19 putational biology” and inserting “computational bi-  
20 ology, and environmental science”; and

21 (2) in subsection (b)—

22 (A) in paragraph (1), by inserting “in sus-  
23 tainable production systems that reduce green-  
24 house gas emissions” after “hydrogen”;

1 (B) at the end of paragraph (3), by strik-  
2 ing “and”;

3 (C) by redesignating paragraph (4) as  
4 paragraph (5); and

5 (D) by inserting after paragraph (3) the  
6 following new paragraph:

7 “(4) develop cellulosic and other feedstocks that  
8 are less resource and land intensive and that pro-  
9 mote sustainable use of resources, including soil,  
10 water, energy, forests, and land, and ensure protec-  
11 tion of air, water, and soil quality; and”.

12 (b) TOOLS AND EVALUATION.—The Secretary, in  
13 consultation with the Administrator of the Environmental  
14 Protection Agency and the Secretary of Agriculture, shall  
15 establish a research and development program to—

16 (1) improve and develop analytical tools to fa-  
17 cilitate the analysis of life-cycle energy and green-  
18 house gas emissions, including emissions related to  
19 direct and indirect land use changes, attributable to  
20 all potential biofuel feedstocks and production proc-  
21 esses; and

22 (2) promote the systematic evaluation of the  
23 impact of expanded biofuel production on the envi-  
24 ronment, including forestlands, and on the food sup-  
25 ply for humans and animals.

1       (c) SMALL-SCALE PRODUCTION AND USE OF  
2 BIOFUELS.—The Secretary, in cooperation with the Sec-  
3 retary of Agriculture, shall establish a research and devel-  
4 opment program to facilitate small-scale production, local,  
5 and on-farm use of biofuels, including the development of  
6 small-scale gasification technologies for production of  
7 biofuel from cellulosic feedstocks.

8       **SEC. 2111. STUDY OF OPTIMIZATION OF BIOGAS USED IN**  
9                               **NATURAL GAS VEHICLES.**

10       (a) IN GENERAL.—The Secretary of Energy shall  
11 conduct a study of methods of increasing the fuel effi-  
12 ciency of vehicles using biogas by optimizing natural gas  
13 vehicle systems that can operate on biogas, including the  
14 advancement of vehicle fuel systems and the combination  
15 of hybrid-electric and plug-in hybrid electric drive plat-  
16 forms with natural gas vehicle systems using biogas.

17       (b) REPORT.—Not later than 180 days after the date  
18 of enactment of this Act, the Secretary of Energy shall  
19 submit to the Committee on Energy and Natural Re-  
20 sources of the Senate and the Committee on Science and  
21 Technology of the House of Representatives a report that  
22 describes the results of the study, including any rec-  
23 ommendations of the Secretary.

1   **SEC. 2112. ALGAL BIOMASS.**

2           Not later than 90 days after the date of enactment  
3 of this Act, the Secretary shall submit to the Committee  
4 on Science and Technology of the House of Representa-  
5 tives and the Committee on Energy and Natural Re-  
6 sources of the Senate a report on the progress of the re-  
7 search and development that is being conducted on the  
8 use of algae as a feedstock for the production of biofuels.  
9 The report shall identify continuing research and develop-  
10 ment challenges and any regulatory or other barriers  
11 found by the Secretary that hinder the use of this re-  
12 source, as well as recommendations on how to encourage  
13 and further its development as a viable transportation  
14 fuel.

15   **SEC. 2113. BLENDED FUELS.**

16           The Secretary shall carry out a program of research,  
17 development, and demonstration as it relates to the blend-  
18 ing of transportation fuels derived from coal-to-liquids and  
19 the blending thereof with transportation fuels derived  
20 from renewable sources, including biomass (as defined in  
21 section 932 of the Energy Policy Act of 2005). The pro-  
22 gram shall focus on—

- 23           (1) maximizing the fungibility and supply of  
24           blended transportation fuels;  
25           (2) the viability of the blend as a cost competi-  
26           tive replacement for transportation fuels;

1 (3) evaluation of the environmental con-  
2 sequences of the blend on evaporative and exhaust  
3 emissions from on-road and off-road engines;

4 (4) the quality of the resultant blend at varying  
5 concentrations of biofuel; and

6 (5) other areas the Secretary considers appro-  
7 priate.

## 8 **Subtitle C—Carbon Capture and** 9 **Storage**

### 10 **SEC. 2201. SHORT TITLE.**

11 This subtitle may be cited as the “Department of En-  
12 ergy Carbon Capture and Storage Research, Development,  
13 and Demonstration Act of 2007”.

### 14 **SEC. 2202. CARBON CAPTURE AND STORAGE RESEARCH,** 15 **DEVELOPMENT, AND DEMONSTRATION PRO-** 16 **GRAM.**

17 (a) AMENDMENTS.—Section 963 of the Energy Pol-  
18 icy Act of 2005 (42 U.S.C. 16293) is amended—

19 (1) in the section heading, by striking “**RE-**  
20 **SEARCH AND DEVELOPMENT**” and inserting  
21 “**AND STORAGE RESEARCH, DEVELOPMENT,**  
22 **AND DEMONSTRATION**”;

23 (2) in subsection (a)—



1 (A) by striking “research and develop-  
2 ment” and inserting “and storage research, de-  
3 velopment, and demonstration”; and

4 (B) by striking “capture technologies on  
5 combustion-based systems” and inserting “cap-  
6 ture and storage technologies related to electric  
7 power generating systems”;

8 (3) in subsection (b)—

9 (A) in paragraph (3), by striking “and” at  
10 the end;

11 (B) in paragraph (4), by striking the pe-  
12 riod at the end and inserting “; and”; and

13 (C) by adding at the end the following:

14 “(5) to expedite and carry out large-scale test-  
15 ing of carbon sequestration systems in a range of ge-  
16 ological formations that will provide information on  
17 the cost and feasibility of deployment of sequestra-  
18 tion technologies.”; and

19 (4) by striking subsection (c) and inserting the  
20 following:

21 “(c) PROGRAMMATIC ACTIVITIES.—

22 “(1) FUNDAMENTAL SCIENCE AND ENGINEER-  
23 ING RESEARCH AND DEVELOPMENT AND DEM-  
24 ONSTRATION SUPPORTING CARBON CAPTURE AND  
25 STORAGE TECHNOLOGIES.—

1           “(A) IN GENERAL.—The Secretary shall  
2           carry out fundamental science and engineering  
3           research (including laboratory-scale experi-  
4           ments, numeric modeling, and simulations) to  
5           develop and document the performance of new  
6           approaches to capture and store carbon dioxide,  
7           or to learn how to use carbon dioxide in prod-  
8           ucts to lead to an overall reduction of carbon  
9           dioxide emissions.

10           “(B) PROGRAM INTEGRATION.—The Sec-  
11           retary shall ensure that fundamental research  
12           carried out under this paragraph is appro-  
13           priately applied to energy technology develop-  
14           ment activities and the field testing of carbon  
15           sequestration and carbon use activities, includ-  
16           ing—

17                   “(i) development of new or advanced  
18                   technologies for the capture of carbon diox-  
19                   ide;

20                   “(ii) development of new or advanced  
21                   technologies that reduce the cost and in-  
22                   crease the efficacy of the compression of  
23                   carbon dioxide required for the storage of  
24                   carbon dioxide;

1 “(iii) modeling and simulation of geo-  
2 logical sequestration field demonstrations;

3 “(iv) quantitative assessment of risks  
4 relating to specific field sites for testing of  
5 sequestration technologies; and

6 “(v) research and development of new  
7 and advanced technologies for carbon use,  
8 including recycling and reuse of carbon di-  
9 oxide.

10 “(2) FIELD VALIDATION TESTING ACTIVI-  
11 TIES.—

12 “(A) IN GENERAL.—The Secretary shall  
13 promote, to the maximum extent practicable,  
14 regional carbon sequestration partnerships to  
15 conduct geologic sequestration tests involving  
16 carbon dioxide injection and monitoring, mitiga-  
17 tion, and verification operations in a variety of  
18 candidate geological settings, including—

19 “(i) operating oil and gas fields;

20 “(ii) depleted oil and gas fields;

21 “(iii) unmineable coal seams;

22 “(iv) deep saline formations;

23 “(v) deep geologic systems that may  
24 be used as engineered reservoirs to extract  
25 economical quantities of heat from geo-

1 thermal resources of low permeability or  
2 porosity;

3 “(vi) deep geologic systems containing  
4 basalt formations; and

5 “(vii) high altitude terrain oil and gas  
6 fields.

7 “(B) OBJECTIVES.—The objectives of tests  
8 conducted under this paragraph shall be—

9 “(i) to develop and validate geo-  
10 physical tools, analysis, and modeling to  
11 monitor, predict, and verify carbon dioxide  
12 containment;

13 “(ii) to validate modeling of geological  
14 formations;

15 “(iii) to refine storage capacity esti-  
16 mated for particular geological formations;

17 “(iv) to determine the fate of carbon  
18 dioxide concurrent with and following in-  
19 jection into geological formations;

20 “(v) to develop and implement best  
21 practices for operations relating to, and  
22 monitoring of, injection and storage of car-  
23 bon dioxide in geologic formations;

1 “(vi) to assess and ensure the safety  
2 of operations related to geological storage  
3 of carbon dioxide;

4 “(vii) to allow the Secretary to pro-  
5 mulgate policies, procedures, requirements,  
6 and guidance to ensure that the objectives  
7 of this subparagraph are met in large-scale  
8 testing and deployment activities for car-  
9 bon capture and storage that are funded  
10 by the Department of Energy; and

11 “(viii) to support Environmental Pro-  
12 tection Agency efforts, in consultation with  
13 other agencies, to develop a scientifically  
14 sound regulatory framework to enable com-  
15 mercial-scale sequestration operations.

16 “(3) LARGE-SCALE CARBON DIOXIDE SEQUES-  
17 TRATION TESTING.—

18 “(A) IN GENERAL.—The Secretary shall  
19 conduct not less than 7 initial large-volume se-  
20 questration tests for geological containment of  
21 carbon dioxide (at least 1 of which shall be  
22 international in scope) to validate information  
23 on the cost and feasibility of commercial deploy-  
24 ment of technologies for geological containment  
25 of carbon dioxide.

1           “(B) DIVERSITY OF FORMATIONS TO BE  
2           STUDIED.—In selecting formations for study  
3           under this paragraph, the Secretary shall con-  
4           sider a variety of geological formations across  
5           the United States, and require characterization  
6           and modeling of candidate formations, as deter-  
7           mined by the Secretary.

8           “(C) SOURCE OF CARBON DIOXIDE FOR  
9           LARGE-SCALE SEQUESTRATION DEMONSTRA-  
10          TIONS.—In the process of any acquisition of  
11          carbon dioxide for sequestration demonstrations  
12          under subparagraph (A), the Secretary shall  
13          give preference to purchases of carbon dioxide  
14          from industrial and coal-fired electric genera-  
15          tion facilities. To the extent feasible, the Sec-  
16          retary shall prefer test projects from industrial  
17          and coal-fired electric generation facilities that  
18          would facilitate the creation of an integrated  
19          system of capture, transportation and storage  
20          of carbon dioxide, including facilities that con-  
21          vert coal to one or more liquid or gaseous trans-  
22          portation fuels. Until coal-fired electric genera-  
23          tion facilities, either new or existing, are oper-  
24          ating with carbon dioxide capture technologies,  
25          other industrial sources of carbon dioxide

1           should be pursued under this paragraph. The  
2           preference provided for under this subpara-  
3           graph shall not delay the implementation of the  
4           large-scale sequestration tests under this para-  
5           graph.

6           “(D) DEFINITION.—For purposes of this  
7           paragraph, the term ‘large-scale’ means the in-  
8           jection of more than 1,000,000 metric tons of  
9           carbon dioxide annually, or a scale that demon-  
10          strably exceeds the necessary thresholds in key  
11          geologic transients to validate the ability con-  
12          tinuously to inject quantities on the order of  
13          several million metric tons of industrial carbon  
14          dioxide annually for a large number of years.

15          “(4) LARGE-SCALE DEMONSTRATION OF CAR-  
16          BON DIOXIDE CAPTURE TECHNOLOGIES.—

17               “(A) IN GENERAL.—The Secretary shall  
18               carry out at least 3 and no more than 5 dem-  
19               onstrations, that include each of the tech-  
20               nologies described in subparagraph (B), for the  
21               large-scale capture of carbon dioxide from in-  
22               dustrial sources of carbon dioxide, at least 2 of  
23               which are facilities that generate electric energy  
24               from fossil fuels. Candidate facilities for other  
25               demonstrations under this paragraph shall in-

1           clude facilities that refine petroleum, convert  
2           coal to one or more liquid or gaseous transpor-  
3           tation fuels, manufacture iron or steel, manu-  
4           facture cement or cement clinker, manufacture  
5           commodity chemicals, and ethanol and fertilizer  
6           plants. Consideration may be given to capture  
7           of carbon dioxide from industrial facilities and  
8           electric generation carbon sources that are near  
9           suitable geological reservoirs and could continue  
10          sequestration. To ensure reduced carbon dioxide  
11          emissions, the Secretary shall take necessary  
12          actions to provide for the integration of the pro-  
13          gram under this paragraph with the long-term  
14          carbon dioxide sequestration demonstrations de-  
15          scribed in paragraph (3). These actions should  
16          not delay implementation of the large-scale se-  
17          questration tests authorized in paragraph (3).

18               “(B) TECHNOLOGIES.—The technologies  
19               referred to in subparagraph (A) are  
20               precombustion capture, post-combustion cap-  
21               ture, and oxycombustion.

22               “(C) SCOPE OF AWARD.—An award under  
23               this paragraph shall be only for the portion of  
24               the project that carries out the large-scale cap-  
25               ture (including purification and compression) of



1 carbon dioxide, as well as the cost of transpor-  
2 tation and injection of carbon dioxide.

3 “(5) PREFERENCE IN PROJECT SELECTION  
4 FROM MERITORIOUS PROPOSALS.—In making com-  
5 petitive awards under this subsection, subject to the  
6 requirements of section 989, the Secretary shall give  
7 preference to proposals from partnerships among in-  
8 dustrial, academic, and government entities.

9 “(6) COST SHARING.—Activities under this sub-  
10 section shall be considered research and development  
11 activities that are subject to the cost-sharing re-  
12 quirements of section 988(b).

13 “(d) AUTHORIZATION OF APPROPRIATIONS.—

14 “(1) IN GENERAL.—There are authorized to be  
15 appropriated to the Secretary for carrying out this  
16 section, other than subsection (c)(3) and (4)—

17 “(A) \$100,000,000 for fiscal year 2008;

18 “(B) \$100,000,000 for fiscal year 2009;

19 “(C) \$100,000,000 for fiscal year 2010;

20 and

21 “(D) \$100,000,000 for fiscal year 2011.

22 “(2) SEQUESTRATION.—There are authorized  
23 to be appropriated to the Secretary for carrying out  
24 subsection (c)(3)—

25 “(A) \$140,000,000 for fiscal year 2008;

1 “(B) \$140,000,000 for fiscal year 2009;

2 “(C) \$140,000,000 for fiscal year 2010;

3 and

4 “(D) \$140,000,000 for fiscal year 2011.

5 “(3) CARBON CAPTURE.—There are authorized  
6 to be appropriated to the Secretary for carrying out  
7 subsection (c)(4)—

8 “(A) \$180,000,000 for fiscal year 2009;

9 “(B) \$180,000,000 for fiscal year 2010;

10 “(C) \$180,000,000 for fiscal year 2011;

11 and

12 “(D) \$180,000,000 for fiscal year 2012.”.

13 (b) TABLE OF CONTENTS AMENDMENT.—The item  
14 relating to section 963 in the table of contents for the En-  
15 ergy Policy Act of 2005 is amended to read as follows:

“Sec. 963. Carbon capture and storage research, development, and demonstra-  
tion program.”.

16 **SEC. 2203. REVIEW OF LARGE-SCALE PROGRAMS.**

17 The Secretary of Energy shall enter into an arrange-  
18 ment with the National Academy of Sciences for an inde-  
19 pendent review and oversight, beginning in 2011, of the  
20 programs under section 963(c)(3) and (4) of the Energy  
21 Policy Act of 2005, as added by section 2202 of this sub-  
22 title, to ensure that the benefits of such programs are  
23 maximized. Not later than January 1, 2012, the Secretary

1 shall transmit to the Congress a report on the results of  
2 such review and oversight.

3 **SEC. 2204. SAFETY RESEARCH.**

4 (a) PROGRAM.—The Assistant Administrator for Re-  
5 search and Development of the Environmental Protection  
6 Agency shall conduct a research program to determine  
7 procedures necessary to protect public health, safety, and  
8 the environment from impacts that may be associated with  
9 capture, injection, and sequestration of greenhouse gases  
10 in subterranean reservoirs.

11 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
12 are authorized to be appropriated for carrying out this sec-  
13 tion \$5,000,000 for each fiscal year.

14 **SEC. 2205. GEOLOGICAL SEQUESTRATION TRAINING AND**  
15 **RESEARCH.**

16 (a) STUDY.—

17 (1) IN GENERAL.—The Secretary of Energy  
18 shall enter into an arrangement with the National  
19 Academy of Sciences to undertake a study that—

20 (A) defines an interdisciplinary program in  
21 geology, engineering, hydrology, environmental  
22 science, and related disciplines that will support  
23 the Nation's capability to capture and sequester  
24 carbon dioxide from anthropogenic sources;

1 (B) addresses undergraduate and graduate  
2 education, especially to help develop graduate  
3 level programs of research and instruction that  
4 lead to advanced degrees with emphasis on geo-  
5 logical sequestration science;

6 (C) develops guidelines for proposals from  
7 colleges and universities with substantial capa-  
8 bilities in the required disciplines that wish to  
9 implement geological sequestration science pro-  
10 grams that advance the Nation's capacity to ad-  
11 dress carbon management through geological  
12 sequestration science; and

13 (D) outlines a budget and recommenda-  
14 tions for how much funding will be necessary to  
15 establish and carry out the grant program  
16 under subsection (b).

17 (2) REPORT.—Not later than 1 year after the  
18 date of enactment of this Act, the Secretary of En-  
19 ergy shall transmit to the Congress a copy of the re-  
20 sults of the study provided by the National Academy  
21 of Sciences under paragraph (1).

22 (3) AUTHORIZATION OF APPROPRIATIONS.—  
23 There are authorized to be appropriated to the Sec-  
24 retary for carrying out this subsection \$1,000,000  
25 for fiscal year 2008.

1 (b) GRANT PROGRAM.—

2 (1) ESTABLISHMENT.—The Secretary of En-  
3 ergy, through the National Energy Technology Lab-  
4 oratory, shall establish a competitive grant program  
5 through which colleges and universities may apply  
6 for and receive 4-year grants for—

7 (A) salary and startup costs for newly des-  
8 ignated faculty positions in an integrated geo-  
9 logical carbon sequestration science program;  
10 and

11 (B) internships for graduate students in  
12 geological sequestration science.

13 (2) RENEWAL.—Grants under this subsection  
14 shall be renewable for up to 2 additional 3-year  
15 terms, based on performance criteria, established by  
16 the National Academy of Sciences study conducted  
17 under subsection (a), that include the number of  
18 graduates of such programs.

19 (3) INTERFACE WITH REGIONAL GEOLOGICAL  
20 CARBON SEQUESTRATION PARTNERSHIPS.—To the  
21 greatest extent possible, geological carbon sequestra-  
22 tion science programs supported under this sub-  
23 section shall interface with the research of the Re-  
24 gional Carbon Sequestration Partnerships operated  
25 by the Department of Energy to provide internships

1 and practical training in carbon capture and geologi-  
2 cal sequestration.

3 (4) AUTHORIZATION OF APPROPRIATIONS.—

4 There are authorized to be appropriated to the Sec-  
5 retary for carrying out this subsection such sums as  
6 may be necessary.

7 **SEC. 2206. UNIVERSITY BASED RESEARCH AND DEVELOP-**  
8 **MENT GRANT PROGRAM.**

9 (a) ESTABLISHMENT.—The Secretary of Energy, in  
10 consultation with other appropriate agencies, shall estab-  
11 lish a university based research and development program  
12 to study carbon capture and sequestration using the var-  
13 ious types of coal.

14 (b) GRANTS.—Under this section, the Secretary shall  
15 award 5 grants for projects submitted by colleges or uni-  
16 versities to study carbon capture and sequestration in con-  
17 junction with the recovery of oil and other enhanced ele-  
18 mental and mineral recovery. Consideration shall be given  
19 to areas that have regional sources of coal for the study  
20 of carbon capture and sequestration.

21 (c) RURAL AND AGRICULTURAL INSTITUTIONS.—The  
22 Secretary shall designate that at least 2 of these grants  
23 shall be awarded to rural or agricultural based institutions  
24 that offer interdisciplinary programs in the area of envi-  
25 ronmental science to study carbon capture and sequestra-

1 tion in conjunction with the recovery of oil and other en-  
2 hanced elemental and mineral recovery.

3 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are to be authorized to be appropriated \$10,000,000 to  
5 carry out this section.

6 **Subtitle D—Produced Water**  
7 **Utilization**

8 **SEC. 2301. SHORT TITLE.**

9 This subtitle may be cited as the “Produced Water  
10 Utilization Act of 2007”.

11 **SEC. 2302. FINDINGS.**

12 The Congress finds as follows:

13 (1) The population of the United States is in-  
14 creasing, and as the population increases, additional  
15 potable water supplies are required to sustain indi-  
16 viduals, agricultural production, and industrial  
17 users, particularly in the Mountain West and desert  
18 Southwest, where water resources are scarce.

19 (2) During the development of domestic energy  
20 sources, including coalbed methane, oil, and natural  
21 gas, water may be extracted from underground  
22 sources and brought to the surface, often increasing  
23 energy production from subsurface geological forma-  
24 tions in the process.

1           (3) Produced water frequently contains in-  
2           creased levels of potentially harmful dissolved solids,  
3           rendering much of the water nonpotable and unsuit-  
4           able for agricultural or industrial uses, and encour-  
5           aging reinjection of the water to subsurface geologi-  
6           cal formations to safely dispose of it, which may lead  
7           to reduced production of domestic energy resources  
8           and increased costs to producers.

9           (4) Increasing environmentally responsible sur-  
10          face utilization of produced water would—

11                (A) increase water supplies available for  
12                agricultural and industrial use;

13                (B) reduce the amount of produced water  
14                returned to underground formations; and

15                (C) increase domestic energy production by  
16                reducing costs associated with reinjection of  
17                produced water to the subsurface.

18 **SEC. 2303. DEFINITIONS.**

19          In this subtitle:

20                (1) **EXISTING PROGRAM.**—The term “existing  
21                program” means a program at the Department of  
22                Energy which is engaged in research, development,  
23                demonstration, and commercial application of tech-  
24                nologies for unconventional domestic natural gas



1 production and other domestic petroleum production  
2 as of the date of enactment of this Act.

3 (2) PRODUCED WATER.—The term “produced  
4 water” means water from an underground source  
5 that is brought to the surface as part of the process  
6 of exploration for or development of coalbed meth-  
7 ane, oil, natural gas, or any other substance to be  
8 used as an energy source.

9 (3) SECRETARY.—The term “Secretary” means  
10 the Secretary of Energy.

11 **SEC. 2304. PURPOSES.**

12 (a) IN GENERAL.—The Secretary shall carry out  
13 under this subtitle, in conjunction with an existing pro-  
14 gram, a program of research, development, and dem-  
15 onstration of technologies for environmentally sustainable  
16 utilization of produced water for use for agriculture, irri-  
17 gation, municipal, or industrial uses, or other environ-  
18 mentally sustainable purposes. The program shall be de-  
19 signed to maximize the utilization of produced water in  
20 the United States by increasing the quality of produced  
21 water and reducing the environmental impacts of produced  
22 water.

23 (b) PROGRAM ELEMENTS.—The program under this  
24 subtitle shall address the following areas, including im-

1 proving safety and minimizing environmental impacts of  
2 activities within each area:

3 (1) Produced water recovery, including research  
4 for desalination and demineralization to reduce total  
5 dissolved solids in the produced water.

6 (2) Produced water utilization for agricultural,  
7 irrigation, municipal, or industrial uses, or other en-  
8 vironmentally sustainable purposes.

9 (3) Reinjection of produced water into sub-  
10 surface geological formations to increase energy pro-  
11 duction.

12 (c) PROGRAM ADMINISTRATION.—The program  
13 under this subtitle shall be administered by a consortium,  
14 administering an existing program, whose members have  
15 collectively demonstrated capabilities and experience in  
16 planning and managing research, development, dem-  
17 onstration, and commercial application programs for un-  
18 conventional natural gas and other petroleum production  
19 and produced water utilization.

20 (d) ACTIVITIES AT THE NATIONAL ENERGY TECH-  
21 NOLOGY LABORATORY.—The Secretary, through the Na-  
22 tional Energy Technology Laboratory, shall carry out a  
23 program of research, development, and demonstration ac-  
24 tivities complementary to and supportive of the research,

1 development, and demonstration programs under sub-  
2 section (b).

3 (e) CONSULTATION.—In carrying out this subtitle,  
4 the Secretary shall consult regularly with the Secretary  
5 of the Interior and the Administrator of the Environ-  
6 mental Protection Agency.

7 **SEC. 2305. SUNSET.**

8 The authority provided by this subtitle shall termi-  
9 nate on September 30, 2016.

10 **SEC. 2306. FUNDING.**

11 (a) ALLOCATION.—Amounts appropriated for this  
12 subtitle for each fiscal year shall be allocated as follows:

13 (1) 75 percent shall be for activities under sec-  
14 tion 2304(a), (b), and (c).

15 (2) 25 percent shall be for activities under sec-  
16 tion 2304(d) and other activities under section 2304,  
17 including administrative functions such as program  
18 direction, overall program oversight, and contract  
19 management.

20 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
21 are authorized to be appropriated to carry out this subtitle  
22 \$20,000,000 for each of fiscal years 2008 through 2016.

## 1     **Subtitle E—Natural Gas Vehicles**

### 2     **SEC. 2401. NATURAL GAS VEHICLE RESEARCH, DEVELOP-** 3                   **MENT, AND DEMONSTRATION PROJECTS.**

4           (a) IN GENERAL.—The Secretary of Energy shall  
5     conduct a 5-year program of natural gas vehicle research,  
6     development, and demonstration. The Secretary shall co-  
7     ordinate with the Administrator of the Environmental  
8     Protection Agency, as necessary.

9           (b) PURPOSE.—The program under this section shall  
10    focus on—

11           (1) the continued improvement and develop-  
12    ment of new, cleaner, more efficient light-duty, me-  
13    dium-duty, and heavy-duty natural gas vehicle en-  
14    gines;

15           (2) the integration of those engines into light-  
16    duty, medium-duty, and heavy-duty natural gas vehi-  
17    cles for onroad and offroad applications;

18           (3) expanding product availability by assisting  
19    manufacturers with the certification of the engines  
20    or vehicles described in paragraph (1) or (2) to Fed-  
21    eral or California certification requirements and in-  
22    use emission standards;

23           (4) the demonstration and proper operation and  
24    use of the vehicles described in paragraph (2) under  
25    all operating conditions;

1           (5) the development and improvement of na-  
2           tionally recognized codes and standards for the con-  
3           tinued safe operation of natural gas vehicles and  
4           their components;

5           (6) improvement in the reliability and efficiency  
6           of natural gas fueling station infrastructure;

7           (7) the certification of natural gas fueling sta-  
8           tion infrastructure to nationally recognized and in-  
9           dustry safety standards;

10          (8) the improvement in the reliability and effi-  
11          ciency of onboard natural gas fuel storage systems;

12          (9) the development of new natural gas fuel  
13          storage materials;

14          (10) the certification of onboard natural gas  
15          fuel storage systems to nationally recognized and in-  
16          dustry safety standards; and

17          (11) the use of natural gas engines in hybrid  
18          vehicles.

19          (c) CERTIFICATION OF CONVERSION SYSTEMS.—The  
20          Secretary shall coordinate with the Administrator on  
21          issues related to streamlining the certification of natural  
22          gas conversion systems to the appropriate Federal certifi-  
23          cation requirements and in-use emission standards.

24          (d) COOPERATION AND COORDINATION WITH INDUS-  
25          TRY.—In developing and carrying out the program under

1 this section, the Secretary shall coordinate with the nat-  
2 ural gas vehicle industry to ensure cooperation between  
3 the public and the private sector.

4 (e) CONDUCT OF PROGRAM.—The program under  
5 this section shall be conducted in accordance with sections  
6 3001 and 3002 of the Energy Policy Act of 1992.

7 (f) REPORT.—Not later than 2 years after the date  
8 of enactment of this Act, the Secretary shall provide a re-  
9 port to Congress on the implementation of this section.

10 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
11 are authorized to be appropriated to the Secretary  
12 \$20,000,000 for each of the fiscal years 2008 through  
13 2012 to carry out this section.

14 (h) DEFINITION.—For purposes of this section, the  
15 term “natural gas” means compressed natural gas, lique-  
16 fied natural gas, biomethane, and mixtures of hydrogen  
17 and methane or natural gas.

18 **Subtitle F—Energy Efficient**  
19 **Buildings**

20 **SEC. 2501. SHORT TITLE.**

21 This subtitle may be cited as the “Energy Efficient  
22 Buildings Act of 2007”.

1 **SEC. 2502. ENERGY EFFICIENT BUILDING GRANT PRO-**  
2 **GRAM.**

3 (a) ENERGY EFFICIENT BUILDING PILOT GRANT  
4 PROGRAM.—

5 (1) IN GENERAL.—Not later than 6 months  
6 after the date of enactment of this Act, the Sec-  
7 retary of Energy (in this subtitle referred to as the  
8 “Secretary”) shall establish a pilot program to  
9 award grants to businesses and organizations for  
10 new construction of energy efficient buildings, or  
11 major renovations of buildings that will result in en-  
12 ergy efficient buildings, to demonstrate innovative  
13 energy efficiency technologies, especially those spon-  
14 sored by the Department of Energy.

15 (2) AWARDS.—The Secretary shall award  
16 grants under this subsection competitively to those  
17 applicants whose proposals—

18 (A) best demonstrate—

19 (i) likelihood to meet or exceed the  
20 standards referred to in subsection (b)(2);

21 (ii) likelihood to maximize cost-effec-  
22 tive energy efficiency opportunities; and

23 (iii) advanced energy efficiency tech-  
24 nologies; and

1 (B) maximize the leverage of private in-  
2 vestment for costs related to increasing the en-  
3 ergy efficiency of the building.

4 (3) CONSIDERATION.—The Secretary shall give  
5 due consideration to proposals for buildings that are  
6 likely to serve low and moderate income populations.

7 (4) AMOUNT OF GRANTS.—Grants under this  
8 subsection shall be for up to 50 percent of design  
9 and energy modeling costs, not to exceed \$50,000  
10 per building. No single grantee may be eligible for  
11 more than 3 grants per year under this program.

12 (5) GRANT PAYMENTS.—

13 (A) INITIAL PAYMENT.—The Secretary  
14 shall pay 50 percent of the total amount of the  
15 grant to grant recipients upon selection.

16 (B) REMAINDER OF PAYMENT.—The Sec-  
17 retary shall pay the remaining 50 percent of the  
18 grant only after independent certification, by a  
19 professional engineer or other qualified profes-  
20 sional, that operational buildings are energy ef-  
21 ficient buildings as defined in subsection (b).

22 (C) FAILURE TO COMPLY.—The Secretary  
23 shall not provide the remainder of the payment  
24 unless the building is certified within 6 months  
25 after operation of the completed building to



1           meet the requirements described in subpara-  
2           graph (B), or in the case of major renovations  
3           the building is certified within 6 months of the  
4           completion of the renovations.

5           (6) REPORT TO CONGRESS.—Not later than 3  
6           years after awarding the first grant under this sub-  
7           section, the Secretary shall transmit to Congress a  
8           report containing—

9                   (A) the total number and dollar amount of  
10           grants awarded under this subsection; and

11                   (B) an estimate of aggregate cost and en-  
12           ergy savings enabled by the pilot program  
13           under this subsection.

14           (7) ADMINISTRATIVE EXPENSES.—Administra-  
15           tive expenses for the program under this subsection  
16           shall not exceed 10 percent of appropriated funds.

17           (b) DEFINITION OF ENERGY EFFICIENT BUILD-  
18           ING.—For purposes of this section the term “energy effi-  
19           cient building” means a building that—

20                   (1) achieves a reduction in energy consumption  
21           of—

22                   (A) at least 30 percent for new construc-  
23           tion, compared to the energy standards set by  
24           the 2004 International Energy Conservation

1 Code (in the case of residential buildings) or  
2 ASHRAE Standard 90.1–2004; or

3 (B) at least 20 percent for major renova-  
4 tions, compared to energy consumption before  
5 renovations are begun;

6 (2) is constructed or renovated in accordance  
7 with the most current, appropriate, and applicable  
8 voluntary consensus standards, as determined by the  
9 Secretary, such as those listed in the assessment  
10 under section 914(b), or revised or developed under  
11 section 914(c), of the Energy Policy Act of 2005;  
12 and

13 (3) after construction or renovation—

14 (A) uses heating, ventilating, and air con-  
15 ditioning systems that perform at no less than  
16 Energy Star standards; or

17 (B) if Energy Star standards are not ap-  
18 plicable, uses Federal Energy Management Pro-  
19 gram recommended heating, ventilating, and air  
20 conditioning products.

21 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
22 are authorized to be appropriated to the Secretary for car-  
23 rying out this section \$10,000,000 for each of the fiscal  
24 years 2008 through 2012.

1 **Subtitle G—Plug-In Hybrid Electric**  
2 **Vehicles**

3 **SEC. 2601. SHORT TITLE.**

4 This subtitle may be cited as the “Plug-In Hybrid  
5 Electric Vehicle Act of 2007”.

6 **SEC. 2602. NEAR-TERM VEHICLE TECHNOLOGY PROGRAM.**

7 (a) DEFINITIONS.—In this section:

8 (1) BATTERY.—The term “battery” means a  
9 device or system for the electrochemical storage of  
10 energy.

11 (2) BIOMASS.—The term “biomass” has mean-  
12 ing given the term in section 932 of the Energy Pol-  
13 icy Act of 2005 (42 U.S.C. 16232).

14 (3) E85.—The term “E85” means a fuel blend  
15 containing 85 percent ethanol and 15 percent gaso-  
16 line by volume.

17 (4) ELECTRIC DRIVE TRANSPORTATION TECH-  
18 NOLOGY.—The term “electric drive transportation  
19 technology” means—

20 (A) vehicles that use an electric motor for  
21 all or part of their motive power and that may  
22 or may not use offboard electricity, including  
23 battery electric vehicles, fuel cell vehicles, hy-  
24 brid electric vehicles, plug-in hybrid electric ve-

1           hicles, flexible fuel plug-in hybrid electric vehi-  
2           cles, and electric rail; and

3           (B) related equipment, including electric  
4           equipment necessary to recharge a plug-in hy-  
5           brid electric vehicle.

6           (5) FLEXIBLE FUEL PLUG-IN HYBRID ELEC-  
7           TRIC VEHICLE.—The term “flexible fuel plug-in hy-  
8           brid electric vehicle” means a plug-in hybrid electric  
9           vehicle—

10           (A) warranted by its manufacturer as ca-  
11           pable of operating on any combination of gaso-  
12           line or E85 for its onboard internal combustion  
13           or heat engine; or

14           (B) that uses a fuel cell for battery charg-  
15           ing when disconnected from offboard power  
16           sources.

17           (6) FUEL CELL VEHICLE.—The term “fuel cell  
18           vehicle” means an onroad vehicle that uses a fuel  
19           cell (as defined in section 803 of the Energy Policy  
20           Act of 2005 (42 U.S.C. 16152)).

21           (7) HYBRID ELECTRIC VEHICLE.—The term  
22           “hybrid electric vehicle” means an onroad vehicle  
23           that—

1 (A) can operate on either liquid combus-  
2 tible fuel or electric power provided by an on-  
3 board battery; and

4 (B) utilizes regenerative power capture  
5 technology to recover energy expended in brak-  
6 ing the vehicle for use in recharging the bat-  
7 tery.

8 (8) PLUG-IN HYBRID ELECTRIC VEHICLE.—The  
9 term “plug-in hybrid electric vehicle” means a hy-  
10 brid electric vehicle that can operate solely on elec-  
11 tric power for a minimum of 20 miles under city  
12 driving conditions, and that is capable of recharging  
13 its battery from an offboard electricity source.

14 (9) SECRETARY.—The term “Secretary” means  
15 the Secretary of Energy.

16 (b) PROGRAM.—The Secretary shall conduct a pro-  
17 gram of research, development, demonstration, and com-  
18 mercial application on technologies needed for the develop-  
19 ment of plug-in hybrid electric vehicles, including—

20 (1) high capacity, high efficiency batteries, to—

21 (A) improve battery life, energy storage ca-  
22 pacity, and power delivery capacity, and lower  
23 cost; and

24 (B) minimize waste and hazardous mate-  
25 rial production in the entire value chain, includ-

1           ing after the end of the useful life of the bat-  
2           teries;

3           (2) high efficiency onboard and offboard charg-  
4           ing components;

5           (3) high power drive train systems for pas-  
6           senger and commercial vehicles and for supporting  
7           equipment;

8           (4) onboard energy management systems, power  
9           trains, and systems integration for plug-in hybrid  
10          electric vehicles, flexible fuel plug-in hybrid electric  
11          vehicles, and hybrid electric vehicles, including effi-  
12          cient cooling systems and systems that minimize the  
13          emissions profile of such vehicles; and

14          (5) lightweight materials, including research,  
15          development, demonstration, and commercial appli-  
16          cation to reduce the cost of materials such as steel  
17          alloys and carbon fibers.

18          (c) PLUG-IN HYBRID ELECTRIC VEHICLE DEM-  
19          ONSTRATION PROGRAM.—

20               (1) ESTABLISHMENT.—The Secretary shall es-  
21          tablish a competitive grant pilot demonstration pro-  
22          gram to provide not more than 25 grants annually  
23          to State governments, local governments, metropoli-  
24          tan transportation authorities, or combinations

1       thereof to carry out a project or projects for dem-  
2       onstration of plug-in hybrid electric vehicles.

3               (2) APPLICATIONS.—

4                       (A) REQUIREMENTS.—The Secretary shall  
5       issue requirements for applying for grants  
6       under the demonstration pilot program. The  
7       Secretary shall require that applications, at a  
8       minimum, include a description of how data will  
9       be—

10                               (i) collected on the—

11                                       (I) performance of the vehicle or  
12       vehicles and the components, includ-  
13       ing the battery, energy management,  
14       and charging systems, under various  
15       driving speeds, trip ranges, traffic,  
16       and other driving conditions;

17                                       (II) costs of the vehicle or vehi-  
18       cles, including acquisition, operating,  
19       and maintenance costs, and how the  
20       project or projects will be self-sus-  
21       taining after Federal assistance is  
22       completed; and

23                                       (III) emissions of the vehicle or  
24       vehicles, including greenhouse gases,  
25       and the amount of petroleum dis-

1 placed as a result of the project or  
2 projects; and

3 (ii) summarized for dissemination to  
4 the Department, other grantees, and the  
5 public.

6 (B) PARTNERS.—An applicant under sub-  
7 paragraph (A) may carry out a project or  
8 projects under the pilot program in partnership  
9 with one or more private entities.

10 (3) SELECTION CRITERIA.—

11 (A) PREFERENCE.—When making awards  
12 under this subsection, the Secretary shall con-  
13 sider each applicant's previous experience in-  
14 volving plug-in hybrid electric vehicles and shall  
15 give preference to proposals that—

16 (i) provide the greatest demonstration  
17 per award dollar, with preference increas-  
18 ing as the number of miles that a plug-in  
19 hybrid electric vehicle can operate solely on  
20 electric power under city driving conditions  
21 increases; and

22 (ii) demonstrate the greatest commit-  
23 ment on the part of the applicant to ensure  
24 funding for the proposed project or  
25 projects and the greatest likelihood that



1           each project proposed in the application  
2           will be maintained or expanded after Fed-  
3           eral assistance under this subsection is  
4           completed.

5           (B) BREADTH OF DEMONSTRATIONS.—In  
6           awarding grants under this subsection, the Sec-  
7           retary shall ensure the program will dem-  
8           onstrate plug-in hybrid electric vehicles under  
9           various circumstances, including—

- 10                   (i) driving speeds;
- 11                   (ii) trip ranges;
- 12                   (iii) driving conditions;
- 13                   (iv) climate conditions; and
- 14                   (v) topography,

15           to optimize understanding and function of plug-  
16           in hybrid electric vehicles.

17           (4) PILOT PROJECT REQUIREMENTS.—

18           (A) SUBSEQUENT FUNDING.—An applicant  
19           that has received a grant in one year may apply  
20           for additional funds in subsequent years, but  
21           the Secretary shall not provide more than  
22           \$10,000,000 in Federal assistance under the  
23           pilot program to any applicant for the period  
24           encompassing fiscal years 2008 through fiscal  
25           year 2012.

1 (B) INFORMATION.—The Secretary shall  
2 establish mechanisms to ensure that the infor-  
3 mation and knowledge gained by participants in  
4 the pilot program are shared among the pilot  
5 program participants and are available to other  
6 interested parties, including other applicants.

7 (5) AWARD AMOUNTS.—The Secretary shall de-  
8 termine grant amounts, but the maximum size of  
9 grants shall decline as the cost of producing plug-in  
10 hybrid electric vehicles declines or the cost of con-  
11 verting a hybrid electric vehicle to a plug-in hybrid  
12 electric vehicle declines.

13 (d) COST SHARING.—The Secretary shall carry out  
14 the program under this section in compliance with section  
15 988(a) through (d) and section 989 of the Energy Policy  
16 Act of 2005 (42 U.S.C. 16352(a) through (d) and 16353).

17 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to the Secretary—

19 (1) for carrying out subsection (b),  
20 \$250,000,000 for each of fiscal years 2008 through  
21 2012, of which up to \$50,000,000 may be used for  
22 the program described in paragraph (5) of that sub-  
23 section; and

24 (2) for carrying out subsection (c), \$50,000,000  
25 for each of fiscal years 2008 through 2012.

1                   **Subtitle H—H-PRIZE**

2   **SEC. 2701. SHORT TITLE.**

3           This subtitle may be cited as the “H-Prize Act of  
4 2007”.

5   **SEC. 2702. DEFINITIONS.**

6           In this subtitle:

7                   (1) ADMINISTERING ENTITY.—The term “ad-  
8 ministering entity” means the entity with which the  
9 Secretary enters into an agreement under section  
10 2703(c).

11                   (2) DEPARTMENT.—The term “Department”  
12 means the Department of Energy.

13                   (3) SECRETARY.—The term “Secretary” means  
14 the Secretary of Energy.

15   **SEC. 2703. PRIZE AUTHORITY.**

16           (a) IN GENERAL.—The Secretary shall carry out a  
17 program to competitively award cash prizes in conformity  
18 with this subtitle to advance the research, development,  
19 demonstration, and commercial application of hydrogen  
20 energy technologies.

21           (b) ADVERTISING AND SOLICITATION OF COMPETI-  
22 TORS.—

23                   (1) ADVERTISING.—The Secretary shall widely  
24 advertise prize competitions to encourage broad par-  
25 ticipation, including by individuals, universities (in-

1 including historically Black colleges and universities  
2 and other minority serving institutions), and large  
3 and small businesses (including businesses owned or  
4 controlled by socially and economically disadvan-  
5 tagged persons).

6 (2) ANNOUNCEMENT THROUGH FEDERAL REG-  
7 ISTER NOTICE.—The Secretary shall announce each  
8 prize competition by publishing a notice in the Fed-  
9 eral Register. This notice shall include essential ele-  
10 ments of the competition such as the subject of the  
11 competition, the duration of the competition, the eli-  
12 gibility requirements for participation in the com-  
13 petition, the process for participants to register for  
14 the competition, the amount of the prize, and the  
15 criteria for awarding the prize.

16 (c) ADMINISTERING THE COMPETITIONS.—The Sec-  
17 retary shall enter into an agreement with a private, non-  
18 profit entity to administer the prize competitions, subject  
19 to the provisions of this subtitle. The duties of the admin-  
20 istering entity under the agreement shall include—

21 (1) advertising prize competitions and their re-  
22 sults;

23 (2) raising funds from private entities and indi-  
24 viduals to pay for administrative costs and to con-  
25 tribute to cash prizes, including funds provided in

1 exchange for the right to name a prize awarded  
2 under this section;

3 (3) developing, in consultation with and subject  
4 to the final approval of the Secretary, the criteria  
5 for selecting winners in prize competitions, based on  
6 goals provided by the Secretary;

7 (4) determining, in consultation with the Sec-  
8 retary, the appropriate amount and funding sources  
9 for each prize to be awarded, subject to the final ap-  
10 proval of the Secretary with respect to Federal fund-  
11 ing;

12 (5) providing advice and consultation to the  
13 Secretary on the selection of judges in accordance  
14 with section 2704(d), using criteria developed in  
15 consultation with and subject to the final approval  
16 of the Secretary; and

17 (6) protecting against the entity's unauthorized  
18 use or disclosure of a registered participant's trade  
19 secrets and confidential business information. Any  
20 information properly identified as trade secrets or  
21 confidential business information that is submitted  
22 by a participant as part of a competitive program  
23 under this subtitle may be withheld from public dis-  
24 closure.

1       (d) FUNDING SOURCES.—Prizes under this subtitle  
2 shall consist of Federal appropriated funds and any funds  
3 provided by the administering entity (including funds  
4 raised pursuant to subsection (c)(2)) for such cash prize  
5 programs. The Secretary may accept funds from other  
6 Federal agencies for such cash prizes and, notwith-  
7 standing section 3302(b) of title 31, United States Code,  
8 may use such funds for the cash prize program. Other  
9 than publication of the names of prize sponsors, the Sec-  
10 retary may not give any special consideration to any pri-  
11 vate sector entity or individual in return for a donation  
12 to the Secretary or administering entity.

13       (e) ANNOUNCEMENT OF PRIZES.—The Secretary  
14 may not issue a notice required by subsection (b)(2) until  
15 all the funds needed to pay out the announced amount  
16 of the prize have been appropriated or committed in writ-  
17 ing by the administering entity. The Secretary may in-  
18 crease the amount of a prize after an initial announcement  
19 is made under subsection (b)(2) if—

20               (1) notice of the increase is provided in the  
21 same manner as the initial notice of the prize; and

22               (2) the funds needed to pay out the announced  
23 amount of the increase have been appropriated or  
24 committed in writing by the administering entity.

1 (f) SUNSET.—The authority to announce prize com-  
2 petitions under this subtitle shall terminate on September  
3 30, 2018.

4 **SEC. 2704. PRIZE CATEGORIES.**

5 (a) CATEGORIES.—The Secretary shall establish  
6 prizes for—

7 (1) advancements in technologies, components,  
8 or systems related to—

9 (A) hydrogen production;

10 (B) hydrogen storage;

11 (C) hydrogen distribution; and

12 (D) hydrogen utilization;

13 (2) prototypes of hydrogen-powered vehicles or  
14 other hydrogen-based products that best meet or ex-  
15 ceed objective performance criteria, such as comple-  
16 tion of a race over a certain distance or terrain or  
17 generation of energy at certain levels of efficiency;  
18 and

19 (3) transformational changes in technologies for  
20 the distribution or production of hydrogen that meet  
21 or exceed far-reaching objective criteria, which shall  
22 include minimal carbon emissions and which may in-  
23 clude cost criteria designed to facilitate the eventual  
24 market success of a winning technology.

25 (b) AWARDS.—

1           (1) ADVANCEMENTS.—To the extent permitted  
2           under section 2703(e), the prizes authorized under  
3           subsection (a)(1) shall be awarded biennially to the  
4           most significant advance made in each of the four  
5           subcategories described in subparagraphs (A)  
6           through (D) of subsection (a)(1) since the submis-  
7           sion deadline of the previous prize competition in the  
8           same category under subsection (a)(1) or the date of  
9           enactment of this Act, whichever is later, unless no  
10          such advance is significant enough to merit an  
11          award. No one such prize may exceed \$1,000,000. If  
12          less than \$4,000,000 is available for a prize competi-  
13          tion under subsection (a)(1), the Secretary may omit  
14          one or more subcategories, reduce the amount of the  
15          prizes, or not hold a prize competition.

16          (2) PROTOTYPES.—To the extent permitted  
17          under section 2703(e), prizes authorized under sub-  
18          section (a)(2) shall be awarded biennially in alter-  
19          nate years from the prizes authorized under sub-  
20          section (a)(1). The Secretary is authorized to award  
21          up to one prize in this category in each 2-year pe-  
22          riod. No such prize may exceed \$4,000,000. If no  
23          registered participants meet the objective perform-  
24          ance criteria established pursuant to subsection (c)



1       for a competition under this paragraph, the Sec-  
2       retary shall not award a prize.

3           (3) TRANSFORMATIONAL TECHNOLOGIES.—To  
4       the extent permitted under section 2703(e), the Sec-  
5       retary shall announce one prize competition author-  
6       ized under subsection (a)(3) as soon after the date  
7       of enactment of this Act as is practicable. A prize  
8       offered under this paragraph shall be not less than  
9       \$10,000,000, paid to the winner in a lump sum, and  
10      an additional amount paid to the winner as a match  
11      for each dollar of private funding raised by the win-  
12      ner for the hydrogen technology beginning on the  
13      date the winner was named. The match shall be pro-  
14      vided for 3 years after the date the prize winner is  
15      named or until the full amount of the prize has been  
16      paid out, whichever occurs first. A prize winner may  
17      elect to have the match amount paid to another enti-  
18      ty that is continuing the development of the winning  
19      technology. The Secretary shall announce the rules  
20      for receiving the match in the notice required by sec-  
21      tion 2703(b)(2). The Secretary shall award a prize  
22      under this paragraph only when a registered partici-  
23      pant has met the objective criteria established for  
24      the prize pursuant to subsection (c) and announced  
25      pursuant to section 2703(b)(2). Not more than

1       \$10,000,000 in Federal funds may be used for the  
2       prize award under this paragraph. The admin-  
3       istering entity shall seek to raise \$40,000,000 to-  
4       ward the matching award under this paragraph.

5       (c) CRITERIA.—In establishing the criteria required  
6       by this subtitle, the Secretary—

7           (1) shall consult with the Department’s Hydro-  
8       gen Technical and Fuel Cell Advisory Committee;

9           (2) shall consult with other Federal agencies,  
10       including the National Science Foundation; and

11          (3) may consult with other experts such as pri-  
12       vate organizations, including professional societies,  
13       industry associations, and the National Academy of  
14       Sciences and the National Academy of Engineering.

15       (d) JUDGES.—For each prize competition, the Sec-  
16       retary in consultation with the administering entity shall  
17       assemble a panel of qualified judges to select the winner  
18       or winners on the basis of the criteria established under  
19       subsection (c). Judges for each prize competition shall in-  
20       clude individuals from outside the Department, including  
21       from the private sector. A judge, spouse, minor children,  
22       and members of the judge’s household may not—

23           (1) have personal or financial interests in, or be  
24       an employee, officer, director, or agent of, any entity

1       that is a registered participant in the prize competi-  
2       tion for which he or she will serve as a judge; or

3           (2) have a familial or financial relationship with  
4       an individual who is a registered participant in the  
5       prize competition for which he or she will serve as  
6       a judge.

7   **SEC. 2705. ELIGIBILITY.**

8       To be eligible to win a prize under this subtitle, an  
9       individual or entity—

10           (1) shall have complied with all the require-  
11       ments in accordance with the Federal Register no-  
12       tice required under section 2703(b)(2);

13           (2) in the case of a private entity, shall be in-  
14       corporated in and maintain a primary place of busi-  
15       ness in the United States, and in the case of an in-  
16       dividual, whether participating singly or in a group,  
17       shall be a citizen of, or an alien lawfully admitted  
18       for permanent residence in, the United States; and

19           (3) shall not be a Federal entity, a Federal em-  
20       ployee acting within the scope of his employment, or  
21       an employee of a national laboratory acting within  
22       the scope of his employment.

23   **SEC. 2706. INTELLECTUAL PROPERTY.**

24       The Federal Government shall not, by virtue of offer-  
25       ing or awarding a prize under this subtitle, be entitled to

1 any intellectual property rights derived as a consequence  
2 of, or direct relation to, the participation by a registered  
3 participant in a competition authorized by this subtitle.  
4 This section shall not be construed to prevent the Federal  
5 Government from negotiating a license for the use of intel-  
6 lectual property developed for a prize competition under  
7 this subtitle.

8 **SEC. 2707. LIABILITY.**

9 (a) WAIVER OF LIABILITY.—The Secretary may re-  
10 quire registered participants to waive claims against the  
11 Federal Government and the administering entity (except  
12 claims for willful misconduct) for any injury, death, dam-  
13 age, or loss of property, revenue, or profits arising from  
14 the registered participants' participation in a competition  
15 under this subtitle. The Secretary shall give notice of any  
16 waiver required under this subsection in the notice re-  
17 quired by section 2703(b)(2). The Secretary may not re-  
18 quire a registered participant to waive claims against the  
19 administering entity arising out of the unauthorized use  
20 or disclosure by the administering entity of the registered  
21 participant's trade secrets or confidential business infor-  
22 mation.

23 (b) LIABILITY INSURANCE.—

24 (1) REQUIREMENTS.—Registered participants  
25 shall be required to obtain liability insurance or

1 demonstrate financial responsibility, in amounts de-  
2 termined by the Secretary, for claims by—

3 (A) a third party for death, bodily injury,  
4 or property damage or loss resulting from an  
5 activity carried out in connection with participa-  
6 tion in a competition under this subtitle; and

7 (B) the Federal Government for damage or  
8 loss to Government property resulting from  
9 such an activity.

10 (2) FEDERAL GOVERNMENT INSURED.—The  
11 Federal Government shall be named as an additional  
12 insured under a registered participant's insurance  
13 policy required under paragraph (1)(A), and reg-  
14 istered participants shall be required to agree to in-  
15 demnify the Federal Government against third party  
16 claims for damages arising from or related to com-  
17 petition activities.

18 **SEC. 2708. REPORT TO CONGRESS.**

19 Not later than 60 days after the awarding of the first  
20 prize under this subtitle, and annually thereafter, the Sec-  
21 retary shall transmit to the Congress a report that—

22 (1) identifies each award recipient;

23 (2) describes the technologies developed by each  
24 award recipient; and

1           (3) specifies actions being taken toward com-  
2           mercial application of all technologies with respect to  
3           which a prize has been awarded under this subtitle.

4   **SEC. 2709. AUTHORIZATION OF APPROPRIATIONS.**

5           (a) AUTHORIZATION OF APPROPRIATIONS.—

6           (1) AWARDS.—There are authorized to be ap-  
7           propriated to the Secretary for the period encom-  
8           passing fiscal years 2008 through 2017 for carrying  
9           out this subtitle—

10                   (A) \$20,000,000 for awards described in  
11                   section 2704(a)(1);

12                   (B) \$20,000,000 for awards described in  
13                   section 2704(a)(2); and

14                   (C) \$10,000,000 for the award described  
15                   in section 2704(a)(3).

16           (2) ADMINISTRATION.—In addition to the  
17           amounts authorized in paragraph (1), there are au-  
18           thorized to be appropriated to the Secretary for each  
19           of fiscal years 2008 and 2009 \$2,000,000 for the  
20           administrative costs of carrying out this subtitle.

21           (b) CARRYOVER OF FUNDS.—Funds appropriated for  
22           prize awards under this subtitle shall remain available  
23           until expended, and may be transferred, reprogrammed,  
24           or expended for other purposes only after the expiration  
25           of 10 fiscal years after the fiscal year for which the funds

1 were originally appropriated. No provision in this subtitle  
2 permits obligation or payment of funds in violation of sec-  
3 tion 1341 of title 31 of the United States Code (commonly  
4 referred to as the Anti-Deficiency Act).

5 **SEC. 2710. NONSUBSTITUTION.**

6 The programs created under this subtitle shall not  
7 be considered a substitute for Federal research and devel-  
8 opment programs.

9 **Subtitle I—Coal Gasification for**  
10 **Ethanol Production**

11 **SEC. 2801. SHORT TITLE.**

12 This subtitle may be cited as the “America’s Domes-  
13 tic Fuels Act”.

14 **SEC. 2802. FINDINGS.**

15 The Congress finds the following:

16 (1) Currently, the bulk of energy used in the  
17 production of ethanol comes from natural gas. While  
18 coal is used for this purpose, advanced coal gasifi-  
19 cation technologies would increase the use of coal  
20 and reduce air emissions.

21 (2) In coal gasification-based systems, pollut-  
22 ant-forming impurities can be separated from the  
23 gaseous stream before combustion. As much as 99  
24 percent of sulfur and other pollutants can be re-  
25 moved and processed into commercial products. Eth-

1       anol plants using coal gasification technology offer  
2       many benefits.

3           (3) Coal potentially is an economically desirable  
4       alternative to natural gas as the fuel in ethanol pro-  
5       duction facilities. The Energy Information Adminis-  
6       tration projects that in 2025 the industrial cost of  
7       natural gas will be \$5.99 per million Btu but coal  
8       will only be \$1.86 per million Btu.

9           (4) Coal is our most price-consistent fossil fuel.  
10       Natural gas is our most price-volatile and unpredict-  
11       able fuel. In 2005 alone, natural gas ranged from  
12       \$5.75 to over \$15.00 per million Btu. Coal therefore  
13       has the potential to allow ethanol plants to better  
14       manage their costs.

15          (5) Coal is a domestic fuel with substantial re-  
16       serves and growing production. The United States  
17       has a vast supply of domestic coal resources to meet  
18       soaring energy needs.

19          (6) Utilizing coal as a major fuel source for eth-  
20       anol production could eliminate the need to import  
21       natural gas for the process.

22          (7) Using domestic coal to produce ethanol has  
23       the potential to create jobs, spur new businesses,  
24       and generate tax revenues for local communities.



1           (8) The United States has ambitious plans to  
2       rapidly grow ethanol production, but the scale of this  
3       growth will depend upon the availability of an eco-  
4       nomical fuel source. Events over the past few years  
5       have demonstrated that we do not want to be overly  
6       dependent on any one fuel source. Thus, dependency  
7       on natural gas for ethanol production is undesirable.  
8       Diversifying the fuel source used for ethanol produc-  
9       tion by increasing the number of ethanol plants that  
10      are coal fueled reduces risk.

11 **SEC. 2803. RESEARCH, DEVELOPMENT, AND DEMONSTRA-**  
12 **TION.**

13       (a) GRANT PROGRAM.—The Secretary of Energy  
14      shall provide grants to States for the conduct of the re-  
15      search needed to expedite the use of coal gasification as  
16      an energy source in ethanol production. Such research as-  
17      sistance shall be provided—

18           (1) to develop the knowledge base that will be  
19       needed to expediently permit coal gasification fueled  
20       ethanol plants;

21           (2) to aid ethanol producers in the evaluation  
22       and inclusion of coal gasification technologies in ex-  
23       isting or new ethanol plants;

24           (3) to understand how to reduce the capital  
25       costs of coal gasification as an energy source in eth-

1       anol production, including making use of byproducts  
2       from agricultural practice, and biomass material or  
3       blends, in the processing of ethanol; and

4           (4) to understand the applicability of carbon di-  
5       oxide capture and sequestration technologies, includ-  
6       ing adsorption and absorption techniques and chem-  
7       ical processes, to coal gasification as an energy  
8       source in ethanol production.

9       (b) DEMONSTRATION PROJECT.—At least 1 pilot  
10   project receiving assistance under this section shall be  
11   fueled by coal gasification and located in an area with high  
12   sulfur bituminous coal reserves.

13       (c) RESEARCH AND DEVELOPMENT AUTHORIZATION  
14   OF APPROPRIATIONS.—There are authorized to be appro-  
15   priated to the Secretary of Energy for carrying out re-  
16   search and development activities under this section  
17   \$5,000,000 for fiscal year 2008.

18       (d) DEMONSTRATION PROJECT AUTHORIZATION OF  
19   APPROPRIATIONS.—There are authorized to be appro-  
20   priated to the Secretary of Energy for carrying out dem-  
21   onstration activities under this section \$20,000,000 for  
22   fiscal year 2008.

1       **TITLE III—TRANSPORTATION**  
2               **AND INFRASTRUCTURE**  
3       **Subtitle A—Federal-Aid Highways**

4       **SEC. 3001. ELIGIBILITY FOR CONGESTION RELIEF**  
5               **PROJECTS.**

6           Section 149(b) of title 23, United States Code, is  
7   amended in the matter following paragraph (7) by insert-  
8   ing after “travel times” the following: “or the Secretary  
9   determines that the project is likely to contribute to reduc-  
10   tions in fuel consumption or the attainment of a national  
11   ambient air quality standard”.

12       **SEC. 3002. REPEAL.**

13           Section 1948 of the Safe, Accountable, Flexible, Effi-  
14   cient Transportation Equity Act: A Legacy for Users is  
15   repealed.

16       **Subtitle B—Other Matters**

17       **SEC. 3011. IMPROVING HYDROPOWER CAPABILITIES.**

18           (a) STUDY.—The Secretary of the Army shall con-  
19   duct a study on the potential for reduced fossil fuel con-  
20   sumption through an increase in hydropower capabilities  
21   of the Corps of Engineers.

22           (b) CONTENTS.—The study shall include the fol-  
23   lowing:

24               (1) An inventory of all lands, properties, and  
25       projects under the jurisdiction of the Corps of Engi-

1       neers that have the potential of increasing hydro-  
2       electric or other alternative power generation capa-  
3       bility, including the ecological impacts of increasing  
4       such capability.

5           (2) A description of the potential effects of re-  
6       moving Federal hydroelectric power facilities under  
7       the jurisdiction of the Corps of Engineers, includ-  
8       ing—

9           (A) the impacts on domestic energy costs  
10       to consumers;

11          (B) the need to import more energy to  
12       compensate for lost production from such hy-  
13       droelectric power facilities;

14          (C) the types of fossil-fuel based or other  
15       energy sources that are likely to be utilized to  
16       compensate for the lost energy associated with  
17       the removal of hydroelectric power facilities;  
18       and

19          (D) any impacts on existing or future agri-  
20       cultural production of biofuels or other alter-  
21       native energy sources as a result of the loss of  
22       water to the Nation's agricultural sector.

23           (3) A description of the potential effects of con-  
24       structing additional Federal hydroelectric power fa-

1 cilities under the jurisdiction of the Corps of Engi-  
2 neers.

3 (c) REPORT.—Not later than one year after the date  
4 of enactment of this Act, the Secretary shall submit to  
5 Congress a report containing the results of the study con-  
6 ducted under this section.

7 **SEC. 3012. PERMIT STREAMLINING FOR HAZARDOUS LIQ-**  
8 **UID AND BIOFUEL PIPELINES.**

9 (a) CHIEF ENVIRONMENTAL PERMIT OFFICER.—  
10 Section 60133(e) of title 49, United States Code, is  
11 amended to read as follows:

12 “(e) CHIEF ENVIRONMENTAL PERMIT OFFICER.—  
13 The Secretary shall designate a chief environmental per-  
14 mit officer to assist resolving disagreements between Fed-  
15 eral, State, and local agencies and pipeline operators aris-  
16 ing during agency review of pipeline repairs and hazardous  
17 liquid and biofuel pipeline construction projects in order  
18 to expedite pipeline projects, consistent with protection of  
19 human health, public safety, and the environment.”.

20 (b) STATE AND LOCAL PERMITTING PROCESSES.—  
21 Section 60133(f) of such title is amended by striking the  
22 first sentence and inserting the following: “The Secretary  
23 shall encourage States and local governments to consoli-  
24 date their respective permitting processes for pipeline re-  
25 pair and hazardous liquid and biofuel pipeline construction

1 projects subject to any time periods for repairs specified  
2 by rule by the Secretary.”.

3 (c) CONSTRUCTION AND EXPANSION OF PIPE-  
4 LINES.—Section 60133 of such title is further amended  
5 by adding at the end the following new subsection:

6 “(g) CONSTRUCTION AND EXPANSION OF PIPE-  
7 LINES.—Upon request by any person proposing to con-  
8 struct or expand a hazardous liquid pipeline, including  
9 pipelines to transport biofuels such as ethanol, the Sec-  
10 retary may coordinate the environmental reviews and per-  
11 mitting processes of the agencies having responsibility for  
12 issuing permits or otherwise authorizing pipeline construc-  
13 tion projects if the Secretary determines that coordinating  
14 the permitting processes to expedite the completion of the  
15 project would be in the national interest.”.

16 (d) PIPELINE REPAIRS.—Section 60133 of such title  
17 (as amended by this subsection (c) of this section) is fur-  
18 ther amended by adding at the end the following:

19 “(h) PRESUMPTIVE EXCLUSIONS.—

20 “(1) NEPA REVIEW.—With respect to any activ-  
21 ity described in paragraph (3), including an activity  
22 on non-Federal land, if the Federal agency having  
23 responsibility for conducting environmental reviews  
24 under the National Environmental Policy Act of  
25 1969 (42 U.S.C. 4321 et seq.) determines that—

1           “(A) the proposed activity is substantially  
2           similar to a pipeline repair activity for which  
3           the Interagency Committee has developed or  
4           adopted best practices under subsection (a)(3)  
5           for determining and reducing or eliminating the  
6           potential for significant impacts to the human  
7           environment under such Act,

8           “(B) the proposed activity is consistent  
9           with these best practices, and

10           “(C) in the absence of extraordinary cir-  
11           cumstances, the proposed activity is not likely  
12           to individually or cumulatively result in signifi-  
13           cant impacts on the human environment,

14           then a Federal agency having responsibility for con-  
15           ducting environmental reviews under such Act or co-  
16           ordinating the permitting process, in consultation  
17           with the Council on Environmental Quality, may  
18           adopt categorical exclusions for those activities. Ac-  
19           tions by those agencies regarding pipeline repair per-  
20           mits shall be subject to a rebuttable presumption  
21           that the use of a categorical exclusion will apply.

22           “(2) ESA REVIEW.—With respect to any activ-  
23           ity described in paragraph (3), including an activity  
24           on non-Federal land, if the Secretary of Interior or  
25           the Secretary of Commerce—

1           “(A) determines that the proposed activity  
2           is substantially similar to a pipeline repair ac-  
3           tivity for which the Interagency Committee has  
4           developed or adopted best practices under sub-  
5           section (a)(3) for determining and reducing or  
6           eliminating impacts to listed species under the  
7           Endangered Species Act of 1973 (16 U.S.C.  
8           1531 et seq.),

9           “(B) concludes that if these best practices  
10          are followed, the activity is not likely to jeop-  
11          ardize the continued existence of any listed spe-  
12          cies or adversely modify the habitat of such spe-  
13          cies, and

14          “(C) concludes that the repair activity  
15          would not conflict with any existing biological  
16          opinion or any agreement made under such Act  
17          relating to the geographic area where the pro-  
18          posed activity will occur,

19          then action by the Secretary of the Interior or the  
20          Secretary of Commerce regarding pipeline repair  
21          permits shall be subject to a rebuttable presumption  
22          that the biological assessment and consultation re-  
23          quirements of such Act have been satisfied.



1           “(3) ACTIVITIES DESCRIBED.—The activities  
2           referred to in paragraphs (1) and (2) are the fol-  
3           lowing:

4                   “(A) Site repairs required to ensure the in-  
5                   tegrity of an existing pipeline facility performed  
6                   entirely within an existing right-of-way corridor  
7                   that do not change the physical character of the  
8                   facility and where the facility was constructed  
9                   in accordance with the environmental reviews  
10                  and authorizations, if any, required by Federal  
11                  law.

12                  “(B) Functional replacement of pipeline  
13                  equipment performed entirely within an existing  
14                  right-of-way corridor that does not change the  
15                  physical character of the facility and where the  
16                  facility was constructed in accordance with the  
17                  environmental reviews and authorizations, if  
18                  any, required by Federal law.”.

19   **SEC. 3013. REDUCTION IN THE EMISSION OF GASES THAT**  
20                   **MAY CAUSE CLIMATE CHANGE.**

21           (a) ENVIRONMENTAL REVIEW CRITERIA.—Section  
22   6(a) of the Deepwater Port Act (33 U.S.C. 1505(a)) is  
23   amended—

24                   (1) in paragraph (6) by striking “and” after  
25                  the semicolon;

1           (2) by redesignating paragraph (7) as para-  
2       graph (8); and

3           (3) by inserting after paragraph (6) the fol-  
4       lowing:

5           “(7) in the case of a deepwater port at which  
6       natural gas will be delivered, the effect of the addi-  
7       tional natural gas supply provided by that port on  
8       reducing the emission of gases that contribute to cli-  
9       mate change; and”.

10       (b) PORTS DEEMED IN NATIONAL INTEREST.—The  
11   Deepwater Port Act (33 U.S.C. 1501 et seq.) is amended  
12   by adding at the end the following:

13   **“SEC. 25. PORTS DEEMED IN NATIONAL INTEREST.**

14       “A deepwater port at which natural gas will be deliv-  
15   ered is deemed to be in the national interest for purposes  
16   of section 4(c)(3) if the natural gas will be used in areas  
17   where its use will reduce the emissions of gases that con-  
18   tribute to climate change.”.

19       **TITLE IV—AMERICAN-MADE**  
20       **ENERGY AND GOOD JOBS ACT**

21   **SEC. 4001. SHORT TITLE.**

22       This title may be cited as the “American-Made En-  
23   ergy and Good Jobs Act”.

24   **SEC. 4002. DEFINITIONS.**

25       In this title:

1           (1) COASTAL PLAIN.—The term “Coastal  
2       Plain” means that area described in appendix I to  
3       part 37 of title 50, Code of Federal Regulations.

4           (2) SECRETARY.—The term “Secretary”, except  
5       as otherwise provided, means the Secretary of the  
6       Interior or the Secretary’s designee.

7       **SEC. 4003. LEASING PROGRAM FOR LANDS WITHIN THE**  
8                               **COASTAL PLAIN.**

9           (a) IN GENERAL.—The Secretary shall take such ac-  
10       tions as are necessary—

11           (1) to establish and implement, in accordance  
12       with this title and acting through the Director of the  
13       Bureau of Land Management in consultation with  
14       the Director of the United States Fish and Wildlife  
15       Service, a competitive oil and gas leasing program  
16       that will result in an environmentally sound program  
17       for the exploration, development, and production of  
18       the oil and gas resources of the Coastal Plain; and

19           (2) to administer the provisions of this title  
20       through regulations, lease terms, conditions, restric-  
21       tions, prohibitions, stipulations, and other provisions  
22       that ensure the oil and gas exploration, development,  
23       and production activities on the Coastal Plain will  
24       result in no significant adverse effect on fish and  
25       wildlife, their habitat, subsistence resources, and the

1 environment, including, in furtherance of this goal,  
2 by requiring the application of the best commercially  
3 available technology for oil and gas exploration, de-  
4 velopment, and production to all exploration, devel-  
5 opment, and production operations under this title  
6 in a manner that ensures the receipt of fair market  
7 value by the public for the mineral resources to be  
8 leased.

9 (b) REPEAL.—

10 (1) REPEAL.—Section 1003 of the Alaska Na-  
11 tional Interest Lands Conservation Act of 1980 (16  
12 U.S.C. 3143) is repealed.

13 (2) CONFORMING AMENDMENT.—The table of  
14 contents in section 1 of such Act is amended by  
15 striking the item relating to section 1003.

16 (c) COMPLIANCE WITH REQUIREMENTS UNDER CER-  
17 TAIN OTHER LAWS.—

18 (1) COMPATIBILITY.—For purposes of the Na-  
19 tional Wildlife Refuge System Administration Act of  
20 1966 (16 U.S.C. 668dd et seq.), the oil and gas  
21 leasing program and activities authorized by this  
22 section in the Coastal Plain are deemed to be com-  
23 patible with the purposes for which the Arctic Na-  
24 tional Wildlife Refuge was established, and no fur-

1       ther findings or decisions are required to implement  
2       this determination.

3           (2) ADEQUACY OF THE DEPARTMENT OF THE  
4       INTERIOR'S LEGISLATIVE ENVIRONMENTAL IMPACT  
5       STATEMENT.—The “Final Legislative Environ-  
6       mental Impact Statement” (April 1987) on the  
7       Coastal Plain prepared pursuant to section 1002 of  
8       the Alaska National Interest Lands Conservation  
9       Act of 1980 (16 U.S.C. 3142) and section 102(2)(C)  
10      of the National Environmental Policy Act of 1969  
11      (42 U.S.C. 4332(2)(C)) is deemed to satisfy the re-  
12      quirements under the National Environmental Policy  
13      Act of 1969 that apply with respect to prelease ac-  
14      tivities, including actions authorized to be taken by  
15      the Secretary to develop and promulgate the regula-  
16      tions for the establishment of a leasing program au-  
17      thorized by this title before the conduct of the first  
18      lease sale.

19           (3) COMPLIANCE WITH NEPA FOR OTHER AC-  
20      TIONS.—Before conducting the first lease sale under  
21      this title, the Secretary shall prepare an environ-  
22      mental impact statement under the National Envi-  
23      ronmental Policy Act of 1969 with respect to the ac-  
24      tions authorized by this title that are not referred to  
25      in paragraph (2). Notwithstanding any other law,

1 the Secretary is not required to identify nonleasing  
2 alternative courses of action or to analyze the envi-  
3 ronmental effects of such courses of action. The Sec-  
4 retary shall only identify a preferred action for such  
5 leasing and a single leasing alternative, and analyze  
6 the environmental effects and potential mitigation  
7 measures for those two alternatives. The identifica-  
8 tion of the preferred action and related analysis for  
9 the first lease sale under this title shall be completed  
10 within 18 months after the date of enactment of this  
11 Act. The Secretary shall only consider public com-  
12 ments that specifically address the Secretary's pre-  
13 ferred action and that are filed within 20 days after  
14 publication of an environmental analysis. Notwith-  
15 standing any other law, compliance with this para-  
16 graph is deemed to satisfy all requirements for the  
17 analysis and consideration of the environmental ef-  
18 fects of proposed leasing under this title.

19 (d) RELATIONSHIP TO STATE AND LOCAL AUTHOR-  
20 ITY.—Nothing in this title shall be considered to expand  
21 or limit State and local regulatory authority.

22 (e) SPECIAL AREAS.—

23 (1) IN GENERAL.—The Secretary, after con-  
24 sultation with the State of Alaska, the city of  
25 Kaktovik, and the North Slope Borough, may des-

1        designate up to a total of 45,000 acres of the Coastal  
2        Plain as a Special Area if the Secretary determines  
3        that the Special Area is of such unique character  
4        and interest so as to require special management  
5        and regulatory protection. The Secretary shall des-  
6        ignate as such a Special Area the Sadlerochit Spring  
7        area, comprising approximately 4,000 acres.

8            (2) MANAGEMENT.—Each such Special Area  
9        shall be managed so as to protect and preserve the  
10       area's unique and diverse character including its  
11       fish, wildlife, and subsistence resource values.

12           (3) EXCLUSION FROM LEASING OR SURFACE  
13       OCCUPANCY.—The Secretary may exclude any Spe-  
14       cial Area from leasing. If the Secretary leases a Spe-  
15       cial Area, or any part thereof, for purposes of oil  
16       and gas exploration, development, production, and  
17       related activities, there shall be no surface occu-  
18       pancy of the lands comprising the Special Area.

19           (4) DIRECTIONAL DRILLING.—Notwithstanding  
20       the other provisions of this subsection, the Secretary  
21       may lease all or a portion of a Special Area under  
22       terms that permit the use of horizontal drilling tech-  
23       nology from sites on leases located outside the Spe-  
24       cial Area.

1 (f) LIMITATION ON CLOSED AREAS.—The Sec-  
2 retary's sole authority to close lands within the Coastal  
3 Plain to oil and gas leasing and to exploration, develop-  
4 ment, and production is that set forth in this title.

5 (g) REGULATIONS.—

6 (1) IN GENERAL.—The Secretary shall pre-  
7 scribe such regulations as may be necessary to carry  
8 out this title, including rules and regulations relating  
9 to protection of the fish and wildlife, their habitat,  
10 subsistence resources, and environment of the Coast-  
11 al Plain, by no later than 15 months after the date  
12 of enactment of this Act.

13 (2) REVISION OF REGULATIONS.—The Sec-  
14 retary shall periodically review and, if appropriate,  
15 revise the rules and regulations issued under sub-  
16 section (a) to reflect any significant biological, envi-  
17 ronmental, or engineering data that come to the Sec-  
18 retary's attention.

19 **SEC. 4004. LEASE SALES.**

20 (a) IN GENERAL.—Lands may be leased pursuant to  
21 this title to any person qualified to obtain a lease for de-  
22 posits of oil and gas under the Mineral Leasing Act (30  
23 U.S.C. 181 et seq.).

24 (b) PROCEDURES.—The Secretary shall, by regula-  
25 tion, establish procedures for—



1           (1) receipt and consideration of sealed nomina-  
2           tions for any area in the Coastal Plain for inclusion  
3           in, or exclusion (as provided in subsection (c)) from,  
4           a lease sale;

5           (2) the holding of lease sales after such nomina-  
6           tion process; and

7           (3) public notice of and comment on designa-  
8           tion of areas to be included in, or excluded from, a  
9           lease sale.

10          (c) LEASE SALE BIDS.—Bidding for leases under  
11 this title shall be by sealed competitive cash bonus bids.

12          (d) ACREAGE MINIMUM IN FIRST SALE.—In the first  
13 lease sale under this title, the Secretary shall offer for  
14 lease those tracts the Secretary considers to have the  
15 greatest potential for the discovery of hydrocarbons, tak-  
16 ing into consideration nominations received pursuant to  
17 subsection (b)(1), but in no case less than 200,000 acres.

18          (e) TIMING OF LEASE SALES.—The Secretary  
19 shall—

20           (1) conduct the first lease sale under this title  
21           within 22 months after the date of the enactment of  
22           this Act; and

23           (2) conduct additional sales so long as sufficient  
24           interest in development exists to warrant, in the Sec-  
25           retary's judgment, the conduct of such sales.

1   **SEC. 4005. GRANT OF LEASES BY THE SECRETARY.**

2           (a) IN GENERAL.—The Secretary may grant to the  
3 highest responsible qualified bidder in a lease sale con-  
4 ducted pursuant to section 4004 any lands to be leased  
5 on the Coastal Plain upon payment by the lessee of such  
6 bonus as may be accepted by the Secretary.

7           (b) SUBSEQUENT TRANSFERS.—No lease issued  
8 under this title may be sold, exchanged, assigned, sublet,  
9 or otherwise transferred except with the approval of the  
10 Secretary. Prior to any such approval the Secretary shall  
11 consult with, and give due consideration to the views of,  
12 the Attorney General.

13   **SEC. 4006. LEASE TERMS AND CONDITIONS.**

14           (a) IN GENERAL.—An oil or gas lease issued pursu-  
15 ant to this title shall—

16               (1) provide for the payment of a royalty of not  
17 less than 12½ percent in amount or value of the  
18 production removed or sold from the lease, as deter-  
19 mined by the Secretary under the regulations appli-  
20 cable to other Federal oil and gas leases;

21               (2) provide that the Secretary may close, on a  
22 seasonal basis, portions of the Coastal Plain to ex-  
23 ploratory drilling activities as necessary to protect  
24 caribou calving areas and other species of fish and  
25 wildlife;

1           (3) require that the lessee of lands within the  
2       Coastal Plain shall be fully responsible and liable for  
3       the reclamation of lands within the Coastal Plain  
4       and any other Federal lands that are adversely af-  
5       fected in connection with exploration, development,  
6       production, or transportation activities conducted  
7       under the lease and within the Coastal Plain by the  
8       lessee or by any of the subcontractors or agents of  
9       the lessee;

10          (4) provide that the lessee may not delegate or  
11       convey, by contract or otherwise, the reclamation re-  
12       sponsibility and liability to another person without  
13       the express written approval of the Secretary;

14          (5) provide that the standard of reclamation for  
15       lands required to be reclaimed under this title shall  
16       be, as nearly as practicable, a condition capable of  
17       supporting the uses which the lands were capable of  
18       supporting prior to any exploration, development, or  
19       production activities, or upon application by the les-  
20       see, to a higher or better use as approved by the  
21       Secretary;

22          (6) contain terms and conditions relating to  
23       protection of fish and wildlife, their habitat, subsist-  
24       ence resources, and the environment as required  
25       pursuant to section 4003(a)(2);

1           (7) provide that the lessee, its agents, and its  
2           contractors use best efforts to provide a fair share,  
3           as determined by the level of obligation previously  
4           agreed to in the 1974 agreement implementing sec-  
5           tion 29 of the Federal Agreement and Grant of  
6           Right of Way for the Operation of the Trans-Alaska  
7           Pipeline, of employment and contracting for Alaska  
8           Natives and Alaska Native Corporations from  
9           throughout the State;

10          (8) prohibit the export of oil produced under  
11          the lease; and

12          (9) contain such other provisions as the Sec-  
13          retary determines necessary to ensure compliance  
14          with the provisions of this title and the regulations  
15          issued under this title.

16          (b) PROJECT LABOR AGREEMENTS.—The Secretary,  
17          as a term and condition of each lease under this title and  
18          in recognizing the Government's proprietary interest in  
19          labor stability and in the ability of construction labor and  
20          management to meet the particular needs and conditions  
21          of projects to be developed under the leases issued pursu-  
22          ant to this title and the special concerns of the parties  
23          to such leases, shall require that the lessee and its agents  
24          and contractors negotiate to obtain a project labor agree-  
25          ment for the employment of laborers and mechanics on

1 production, maintenance, and construction under the  
2 lease.

3 **SEC. 4007. COASTAL PLAIN ENVIRONMENTAL PROTECTION.**

4 (a) NO SIGNIFICANT ADVERSE EFFECT STANDARD  
5 TO GOVERN AUTHORIZED COASTAL PLAIN ACTIVITIES.—

6 The Secretary shall, consistent with the requirements of  
7 section 4003, administer the provisions of this title  
8 through regulations, lease terms, conditions, restrictions,  
9 prohibitions, stipulations, and other provisions that—

10 (1) ensure the oil and gas exploration, develop-  
11 ment, and production activities on the Coastal Plain  
12 will result in no significant adverse effect on fish  
13 and wildlife, their habitat, and the environment;

14 (2) require the application of the best commer-  
15 cially available technology for oil and gas explo-  
16 ration, development, and production on all new ex-  
17 ploration, development, and production operations;  
18 and

19 (3) ensure that the maximum amount of sur-  
20 face acreage covered by production and support fa-  
21 cilities, including airstrips and any areas covered by  
22 gravel berms or piers for support of pipelines, does  
23 not exceed 2,000 acres on the Coastal Plain.

1 (b) SITE-SPECIFIC ASSESSMENT AND MITIGATION.—

2 The Secretary shall also require, with respect to any pro-  
3 posed drilling and related activities, that—

4 (1) a site-specific analysis be made of the prob-  
5 able effects, if any, that the drilling or related activi-  
6 ties will have on fish and wildlife, their habitat, sub-  
7 sistence resources, and the environment;

8 (2) a plan be implemented to avoid, minimize,  
9 and mitigate (in that order and to the extent prac-  
10 ticable) any significant adverse effect identified  
11 under paragraph (1); and

12 (3) the development of the plan shall occur  
13 after consultation with the agency or agencies hav-  
14 ing jurisdiction over matters mitigated by the plan.

15 (c) REGULATIONS TO PROTECT COASTAL PLAIN  
16 FISH AND WILDLIFE RESOURCES, SUBSISTENCE USERS,  
17 AND THE ENVIRONMENT.—Before implementing the leas-  
18 ing program authorized by this title, the Secretary shall  
19 prepare and promulgate regulations, lease terms, condi-  
20 tions, restrictions, prohibitions, stipulations, and other  
21 measures designed to ensure that the activities undertaken  
22 on the Coastal Plain under this title are conducted in a  
23 manner consistent with the purposes and environmental  
24 requirements of this title.

1 (d) COMPLIANCE WITH FEDERAL AND STATE ENVI-  
2 RONMENTAL LAWS AND OTHER REQUIREMENTS.—The  
3 proposed regulations, lease terms, conditions, restrictions,  
4 prohibitions, and stipulations for the leasing program  
5 under this title shall require compliance with all applicable  
6 provisions of Federal and State environmental law, and  
7 shall also require the following:

8 (1) Standards at least as effective as the safety  
9 and environmental mitigation measures set forth in  
10 items 1 through 29 at pages 167 through 169 of the  
11 “Final Legislative Environmental Impact State-  
12 ment” (April 1987) on the Coastal Plain.

13 (2) Seasonal limitations on exploration, develop-  
14 ment, and related activities, where necessary, to  
15 avoid significant adverse effects during periods of  
16 concentrated fish and wildlife breeding, denning,  
17 nesting, spawning, and migration.

18 (3) That exploration activities, except for sur-  
19 face geological studies, be limited to the period be-  
20 tween approximately November 1 and May 1 each  
21 year and that exploration activities shall be sup-  
22 ported, if necessary, by ice roads, winter trails with  
23 adequate snow cover, ice pads, ice airstrips, and air  
24 transport methods, except that such exploration ac-  
25 tivities may occur at other times if the Secretary

1 finds that such exploration will have no significant  
2 adverse effect on the fish and wildlife, their habitat,  
3 and the environment of the Coastal Plain.

4 (4) Design safety and construction standards  
5 for all pipelines and any access and service roads,  
6 that—

7 (A) minimize, to the maximum extent pos-  
8 sible, adverse effects upon the passage of mi-  
9 gratory species such as caribou; and

10 (B) minimize adverse effects upon the flow  
11 of surface water by requiring the use of cul-  
12 verts, bridges, and other structural devices.

13 (5) Prohibitions on general public access and  
14 use on all pipeline access and service roads.

15 (6) Stringent reclamation and rehabilitation re-  
16 quirements, consistent with the standards set forth  
17 in this title, requiring the removal from the Coastal  
18 Plain of all oil and gas development and production  
19 facilities, structures, and equipment upon completion  
20 of oil and gas production operations, except that the  
21 Secretary may exempt from the requirements of this  
22 paragraph those facilities, structures, or equipment  
23 that the Secretary determines would assist in the  
24 management of the Arctic National Wildlife Refuge



1       and that are donated to the United States for that  
2       purpose.

3           (7) Appropriate prohibitions or restrictions on  
4       access by all modes of transportation.

5           (8) Appropriate prohibitions or restrictions on  
6       sand and gravel extraction.

7           (9) Consolidation of facility siting.

8           (10) Appropriate prohibitions or restrictions on  
9       use of explosives.

10          (11) Avoidance, to the extent practicable, of  
11       springs, streams, and river system; the protection of  
12       natural surface drainage patterns, wetlands, and ri-  
13       parian habitats; and the regulation of methods or  
14       techniques for developing or transporting adequate  
15       supplies of water for exploratory drilling.

16          (12) Avoidance or minimization of air traffic-re-  
17       lated disturbance to fish and wildlife.

18          (13) Treatment and disposal of hazardous and  
19       toxic wastes, solid wastes, reserve pit fluids, drilling  
20       muds and cuttings, and domestic wastewater, includ-  
21       ing an annual waste management report, a haz-  
22       ardous materials tracking system, and a prohibition  
23       on chlorinated solvents, in accordance with applica-  
24       ble Federal and State environmental law.

1           (14) Fuel storage and oil spill contingency plan-  
2           ning.

3           (15) Research, monitoring, and reporting re-  
4           quirements.

5           (16) Field crew environmental briefings.

6           (17) Avoidance of significant adverse effects  
7           upon subsistence hunting, fishing, and trapping by  
8           subsistence users.

9           (18) Compliance with applicable air and water  
10          quality standards.

11          (19) Appropriate seasonal and safety zone des-  
12          ignations around well sites, within which subsistence  
13          hunting and trapping shall be limited.

14          (20) Reasonable stipulations for protection of  
15          cultural and archeological resources.

16          (21) All other protective environmental stipula-  
17          tions, restrictions, terms, and conditions deemed  
18          necessary by the Secretary.

19          (e) CONSIDERATIONS.—In preparing and promul-  
20          gating regulations, lease terms, conditions, restrictions,  
21          prohibitions, and stipulations under this section, the Sec-  
22          retary shall consider the following:

23                 (1) The stipulations and conditions that govern  
24                 the National Petroleum Reserve-Alaska leasing pro-  
25                 gram, as set forth in the 1999 Northeast National

1       Petroleum Reserve-Alaska Final Integrated Activity  
2       Plan/Environmental Impact Statement.

3           (2) The environmental protection standards  
4       that governed the initial Coastal Plain seismic explo-  
5       ration program under parts 37.31 to 37.33 of title  
6       50, Code of Federal Regulations.

7           (3) The land use stipulations for exploratory  
8       drilling on the KIC-ASRC private lands that are set  
9       forth in Appendix 2 of the August 9, 1983, agree-  
10      ment between Arctic Slope Regional Corporation and  
11      the United States.

12      (f) FACILITY CONSOLIDATION PLANNING.—

13           (1) IN GENERAL.—The Secretary shall, after  
14      providing for public notice and comment, prepare  
15      and update periodically a plan to govern, guide, and  
16      direct the siting and construction of facilities for the  
17      exploration, development, production, and transpor-  
18      tation of Coastal Plain oil and gas resources.

19           (2) OBJECTIVES.—The plan shall have the fol-  
20      lowing objectives:

21                   (A) Avoiding unnecessary duplication of fa-  
22                   cilities and activities.

23                   (B) Encouraging consolidation of common  
24                   facilities and activities.

1 (C) Locating or confining facilities and ac-  
2 tivities to areas that will minimize impact on  
3 fish and wildlife, their habitat, and the environ-  
4 ment.

5 (D) Utilizing existing facilities wherever  
6 practicable.

7 (E) Enhancing compatibility between wild-  
8 life values and development activities.

9 (g) ACCESS TO PUBLIC LANDS.—The Secretary  
10 shall—

11 (1) manage public lands in the Coastal Plain  
12 subject to subsections (a) and (b) of section 811 of  
13 the Alaska National Interest Lands Conservation  
14 Act (16 U.S.C. 3121); and

15 (2) ensure that local residents shall have rea-  
16 sonable access to public lands in the Coastal Plain  
17 for traditional uses.

18 **SEC. 4008. EXPEDITED JUDICIAL REVIEW.**

19 (a) FILING OF COMPLAINT.—

20 (1) DEADLINE.—Subject to paragraph (2), any  
21 complaint seeking judicial review of any provision of  
22 this title or any action of the Secretary under this  
23 title shall be filed—

1 (A) except as provided in subparagraph  
2 (B), within the 90-day period beginning on the  
3 date of the action being challenged; or

4 (B) in the case of a complaint based solely  
5 on grounds arising after such period, within 90  
6 days after the complainant knew or reasonably  
7 should have known of the grounds for the com-  
8 plaint.

9 (2) VENUE.—Any complaint seeking judicial re-  
10 view of any provision of this title or any action of  
11 the Secretary under this title may be filed only in  
12 the United States Court of Appeals for the District  
13 of Columbia.

14 (3) LIMITATION ON SCOPE OF CERTAIN RE-  
15 VIEW.—Judicial review of a Secretarial decision to  
16 conduct a lease sale under this title, including the  
17 environmental analysis thereof, shall be limited to  
18 whether the Secretary has complied with the terms  
19 of this title and shall be based upon the administra-  
20 tive record of that decision. The Secretary's identi-  
21 fication of a preferred course of action to enable  
22 leasing to proceed and the Secretary's analysis of  
23 environmental effects under this title shall be pre-  
24 sumed to be correct unless shown otherwise by clear  
25 and convincing evidence to the contrary.

1 (b) LIMITATION ON OTHER REVIEW.—Actions of the  
2 Secretary with respect to which review could have been  
3 obtained under this section shall not be subject to judicial  
4 review in any civil or criminal proceeding for enforcement.

5 **SEC. 4009. FEDERAL AND STATE DISTRIBUTION OF REVE-**  
6 **NUES.**

7 (a) IN GENERAL.—Notwithstanding any other provi-  
8 sion of law, of the amount of adjusted bonus, rental, and  
9 royalty revenues from Federal oil and gas leasing and op-  
10 erations authorized under this title—

11 (1) 50 percent shall be paid to the State of  
12 Alaska; and

13 (2) except as provided in section 4012(d), the  
14 balance shall be deposited into the Treasury as mis-  
15 cellaneous receipts.

16 (b) PAYMENTS TO ALASKA.—Payments to the State  
17 of Alaska under this section shall be made semiannually.

18 **SEC. 4010. RIGHTS-OF-WAY ACROSS THE COASTAL PLAIN.**

19 (a) IN GENERAL.—The Secretary shall issue rights-  
20 of-way and easements across the Coastal Plain for the  
21 transportation of oil and gas—

22 (1) except as provided in paragraph (2), under  
23 section 28 of the Mineral Leasing Act (30 U.S.C.  
24 185), without regard to title XI of the Alaska Na-

1 tional Interest Lands Conservation Act (30 U.S.C.  
2 3161 et seq.); and

3 (2) under title XI of the Alaska National Inter-  
4 est Lands Conservation Act (30 U.S.C. 3161 et  
5 seq.), for access authorized by sections 1110 and  
6 1111 of that Act (16 U.S.C. 3170 and 3171).

7 (b) TERMS AND CONDITIONS.—The Secretary shall  
8 include in any right-of-way or easement issued under sub-  
9 section (a) such terms and conditions as may be necessary  
10 to ensure that transportation of oil and gas does not result  
11 in a significant adverse effect on the fish and wildlife, sub-  
12 sistence resources, their habitat, and the environment of  
13 the Coastal Plain, including requirements that facilities be  
14 sited or designed so as to avoid unnecessary duplication  
15 of roads and pipelines.

16 (c) REGULATIONS.—The Secretary shall include in  
17 regulations under section 4003(g) provisions granting  
18 rights-of-way and easements described in subsection (a)  
19 of this section.

20 **SEC. 4011. CONVEYANCE.**

21 In order to maximize Federal revenues by removing  
22 clouds on title to lands and clarifying land ownership pat-  
23 terns within the Coastal Plain, the Secretary, notwith-  
24 standing the provisions of section 1302(h)(2) of the Alas-

1 ka National Interest Lands Conservation Act (16 U.S.C.  
2 3192(h)(2)), shall convey—

3 (1) to the Kaktovik Inupiat Corporation the  
4 surface estate of the lands described in paragraph 1  
5 of Public Land Order 6959, to the extent necessary  
6 to fulfill the Corporation's entitlement under sec-  
7 tions 12 and 14 of the Alaska Native Claims Settle-  
8 ment Act (43 U.S.C. 1611 and 1613) in accordance  
9 with the terms and conditions of the Agreement be-  
10 tween the Department of the Interior, the United  
11 States Fish and Wildlife Service, the Bureau of  
12 Land Management, and the Kaktovik Inupiat Cor-  
13 poration effective January 22, 1993; and

14 (2) to the Arctic Slope Regional Corporation  
15 the remaining subsurface estate to which it is enti-  
16 tled pursuant to the August 9, 1983, agreement be-  
17 tween the Arctic Slope Regional Corporation and the  
18 United States of America.

19 **SEC. 4012. LOCAL GOVERNMENT IMPACT AID AND COMMU-**  
20 **NITY SERVICE ASSISTANCE.**

21 (a) FINANCIAL ASSISTANCE AUTHORIZED.—

22 (1) IN GENERAL.—The Secretary may use  
23 amounts available from the Coastal Plain Local Gov-  
24 ernment Impact Aid Assistance Fund established by  
25 subsection (d) to provide timely financial assistance



1 to entities that are eligible under paragraph (2) and  
2 that are directly impacted by the exploration for or  
3 production of oil and gas on the Coastal Plain under  
4 this title.

5 (2) ELIGIBLE ENTITIES.—The North Slope  
6 Borough, the City of Kaktovik, and any other bor-  
7 ough, municipal subdivision, village, or other com-  
8 munity in the State of Alaska that is directly im-  
9 pacted by exploration for, or the production of, oil  
10 or gas on the Coastal Plain under this title, as de-  
11 termined by the Secretary, shall be eligible for finan-  
12 cial assistance under this section.

13 (b) USE OF ASSISTANCE.—Financial assistance  
14 under this section may be used only for—

15 (1) planning for mitigation of the potential ef-  
16 fects of oil and gas exploration and development on  
17 environmental, social, cultural, recreational, and sub-  
18 sistence values;

19 (2) implementing mitigation plans and main-  
20 taining mitigation projects;

21 (3) developing, carrying out, and maintaining  
22 projects and programs that provide new or expanded  
23 public facilities and services to address needs and  
24 problems associated with such effects, including fire-

1 fighting, police, water, waste treatment, medivac,  
2 and medical services; and

3 (4) establishment of a coordination office, by  
4 the north slope borough, in the city of kaktovik,  
5 which shall—

6 (A) coordinate with and advise developers  
7 on local conditions, impact, and history of the  
8 areas utilized for development; and

9 (B) provide to the Committee on Resources  
10 of the House of Representatives and the Com-  
11 mittee on Energy and Natural Resources of the  
12 Senate an annual report on the status of co-  
13 ordination between developers and the commu-  
14 nities affected by development.

15 (c) APPLICATION.—

16 (1) IN GENERAL.—Any community that is eligi-  
17 ble for assistance under this section may submit an  
18 application for such assistance to the Secretary, in  
19 such form and under such procedures as the Sec-  
20 retary may prescribe by regulation.

21 (2) NORTH SLOPE BOROUGH COMMUNITIES.—A  
22 community located in the North Slope Borough may  
23 apply for assistance under this section either directly  
24 to the Secretary or through the North Slope Bor-  
25 ough

1           (3) APPLICATION ASSISTANCE.—The Secretary  
2       shall work closely with and assist the North Slope  
3       Borough and other communities eligible for assist-  
4       ance under this section in developing and submitting  
5       applications for assistance under this section.

6       (d) ESTABLISHMENT OF FUND.—

7           (1) IN GENERAL.—There is established in the  
8       Treasury the Coastal Plain Local Government Im-  
9       pact Aid Assistance Fund.

10          (2) USE.—Amounts in the fund may be used  
11       only for providing financial assistance under this  
12       section.

13          (3) DEPOSITS.—Subject to paragraph (4), there  
14       shall be deposited into the fund amounts received by  
15       the United States as revenues derived from rents,  
16       bonuses, and royalties from Federal leases and lease  
17       sales authorized under this title.

18          (4) LIMITATION ON DEPOSITS.—The total  
19       amount in the fund may not exceed \$11,000,000.

20          (5) INVESTMENT OF BALANCES.—The Sec-  
21       retary of the Treasury shall invest amounts in the  
22       fund in interest bearing government securities.

23       (e) AUTHORIZATION OF APPROPRIATIONS.—To pro-  
24       vide financial assistance under this section there is author-  
25       ized to be appropriated to the Secretary from the Coastal

1 Plain Local Government Impact Aid Assistance Fund  
2 \$5,000,000 for each fiscal year.

3 **SEC. 4013. OIL AND GAS LEASING 100 MILES OR MORE**  
4 **FROM THE COASTLINE.**

5 (a) LEASING AND PRELEASING ACTIVITIES.—The  
6 Secretary of the Interior may conduct oil and gas leasing  
7 and preleasing activities for the area of the outer Conti-  
8 nental Shelf 100 miles or more seaward from the coastline.

9 (b) REVOCATION OF WITHDRAWALS.—All with-  
10 draws of submerged lands of the outer Continental Shelf  
11 from leasing for oil and gas by the President under the  
12 authority of section 12 of the Outer Continental Shelf  
13 Lands Act (43 U.S.C. 1341) are hereby revoked and no  
14 longer in effect with respect to the leasing of areas 100  
15 miles or more seaward from the coastline.

16 (c) DEFINITIONS.—For purposes of this section and  
17 the Outer Continental Shelf Lands Act (43 U.S.C. 1331  
18 et seq.) the following definitions shall apply:

19 (1) The term “miles” means statute miles.

20 (2) The term “coastline” has the same meaning  
21 as the term “coast line” as defined in section 2(c)  
22 of the Submerged Lands Act (43 U.S.C. 1301(c)).